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ADVISORY

COMMITTEE ON RECONSTRUCTION

FOOD DISTRIBUTION PROGRAMMES OF THE UNITED STATES DEPARTMENT OF AGRICULTURE AND OBSERVATIONS AND RECOMMENDATIONS REGARDING POSTWAR PROGRAMMES OF A SIMILAR KIND FOR CANADA

by
Dr. W.C. Hopper.

Ottawa, 1943.

This study was prepared for the use of the Advisory Committee on Reconstruction. The views expressed are those of the author and do not necessarily carry the approval of the Advisory Committee on Reconstruction or its Sub-Committees.

Mr. D.G. McKenzie,
Chairman,
Sub-Committee on Agricultural Policy
of the Reconstruction Committee,
O T T A W A.

Dear Mr. McKenzie:

Attached hereto is my report on the programmes of distribution of food by the United States Department of Agriculture and observations and recommendations in connection with programmes of a similar kind for Canada during post-war years.

During the month of October 1942 I spent two weeks in the United States and while there I gathered information at the Head Office of the Agricultural Marketing Administration of the United States Department of Agriculture in Washington, and I also visited regional offices of the Agricultural Marketing Administration and a number of Food Stamp offices and public schools where lunches were being served in Atlanta, G.A., Jackson, Miss., and Philadelphia.

If the Sub-Committee of which you are the Chairman considers that programmes for the distribution of food to needy families and provision of milk and food commodities for school children in Canada during post-war years are worthy of further consideration, additional study should be made in Canada as to the procedure which should be followed in the establishment of such programmes. The nature of these additional studies are indicated in the attached report.

Yours very truly,

SGD. W.C. Hopper

W.C. Hopper

OTTAWA,
March 31, 1943.

Food Commodity Distribution by the U. S. Department of Agriculture

History

In August 1933 the Agricultural Adjustment Administration arranged with the newly created Federal Emergency Relief Administration to distribute pork products obtained from the 1933 emergency hog campaign. In 1934 the Department of Agriculture was authorized to make advances to the Federal Surplus Relief Corporation (which name was later changed to the Federal Surplus Commodities Corporation when administrative control was transferred to the Department of Agriculture), for the purchase of dairy and beef products and drought relief pork. Since November 18, 1935, the food disposal activities have been carried on by the Department of Agriculture, first by the Federal Surplus Commodities Corporation and later by the Surplus Marketing Administration, (which included the Federal Surplus Commodities Corporation).

From November 18, 1935, to January 30,1937, total purchases of agricultural products for domestic distribution by the Department of Agriculture were primarily to relieve "surplus" situations. The disposal to needy people of products which were surplus to normal demands and therefore low in price, was a convenient outlet for these commodities. Distribution was sporadic and purchases frequently small. In a number of instances substantial amounts of the appropriated funds were not spent.

Beginning in 1939 a new set of considerations was developing. In the first place, the period of relative agricultural and urban prosperity of 1937 was followed by a depression in which farm income and farm prices were again severely depressed. At the same time the export market was proving to be an uncertain and diminishing outlet for agricultural products. Finally, the existence of nearly twenty million persons receiving public assistance and millions of others with incomes so low as to prevent them from being important purchasers of agricultural markets turned administrative policy and objectives to the possibilities of developing the domestic market. This point of view was developed in the "Report of the Administrative Official in Charge of Surplus Removal and Marketing Agreement Programs, 1940".

> "As a matter of national policy, the country is determined not to retreat from its foreign markets without first exhausting every practical device to keep them. It has become increasingly clear, however, that under present world conditions untapped markets here in the United States offer the best chance to hold adequate outlets for our farm production.
>
> "The unsatisfied wants of millions of our citizens offer a challenge and an opportunity to increase domestic distribution of agricultural products. The chance to reach these potential new markets among our own lower-income groups is the most hopeful prospect in a clouded world-market situation. Here is a great opportunity for our farm producers and businessmen.
>
> "Recent studies show that two-thirds of the families in the United States -- 80,000,000 persons -- have been living on an average cash income of only $69 a month for a whole family. Such an income has to be spread very thinly to cover expenditures for bare necessities. For many million families it leaves only about 5 cents a meal for food. The story of under-consumption is told in these figures.
>
> "Families who are forced to live at the 5-cents-a-meal level cannot buy the amounts or kinds of food they need. They do not get enough of fruits and vegetables of dairy and poultry products, or of meats. Neither can they buy adequate supplies of clothing and household goods.

Studies show that families of four with incomes of $500 a year or less spend only $17 a year for cotton goods, as against expenditures of $111 a year for families of four making $5,000 a year or over.

"If all families earning less than $100 a month could bring their incomes up to that level, the national expenditure for food alone would increase by approximately 2 billion dollars a year, about half of which would go back to the farmer, thus raising the price level for his entire production. In the same way, low-income families would increase their cotton purchases materially if they had more buying power. In one way or another this untapped market must be reached.

"Definite progress has been made during the past year in bridging this gap by giving millions of low-income families a chance to enjoy a better standard of living at the same time that markets for the country's agricultural surpluses are broadened. This work has gone forward in the belief that it makes sense to use farm surpluses at home, if they can no longer be sold abroad. Enabling low-income families to get a more adequate diet and an improved standard of living builds the health and economic defences of the Nation.

"Surplus removal programs are authorized by section 32 of Public, No. 320, as amended, and by related legislation. During the year ended June 30, 1940, programs carried out under this authorization were expended materially. In anticipation of the adverse effects of the war upon farm markets, measures for encouraging increased domestic consumption and developing wider outlets were revised and adapted for more effective use in meeting changing situations."

By this time, specific long-time objectives appeared to be stressed. Though working through individual commodities, the objectives appeared to be to secure on a much broader scale than ever before increased domestic use of agricultural products. Farm income was to be buttressed and production was to be directed toward meeting unfulfilled domestic needs. Thus the aim was to provide a more stable market for agriculture as well as to get rid of surpluses. Surpluses were now interpreted not solely in terms of agricultural commodities, but in terms of unutilized farm land and labour.

Pursuing these objectives, a new program, the Food Stamp Program[1] was developed. Distribution of foodstuffs' to school children was very greatly augmented. Low-cost milk distribution schemes were expanded. Expenditures were greatly increased. From November 1935 to June 30, 1939, expenditures for these programs had never exceeded 70 million dollars in any one fiscal year. In the fisdal year ended June 30, 1940, they totalled about 194 million dollars of which about 136 million dollars were spent on programs for increasing domestic consumption of food and cotton. In the fiscal year ended June 30,1941, over 230 million dollars were spent of which approximately 176 million dollars were spent on the domestic food and cotton programs.

Beginning in March 1941, a new set of policies was begun. Under the stimulus of rising national income and employment,, and as a result of British needs, a Department-wide program was devised to greatly stimulate agricultural production. Needs as indicated by nutrition deficiencies were stressed to an unusual degree. On April 3, 1941, the Department announced "an expansion of the Ever-Normal Granary Program into a food program designed to assure ample supplies for the United States, Great Britain and other nations resisting aggression." Farmers were urged to increase pork, dairy and egg production; subsequently tomato and bean production. The Surplus Marketing Administration was instructed to make purchases in the open market to support long term prices so as to stimulate the increased production. These supplies were to be used for domestic food disposal programs; as well as for transfer to Britain and other countries under the Lend-Lease Act, and for the Red Cross in war refugee areas.

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[1] Early in January 1943, the U.S. Department of Agriculture announced the suspension of the Food Stamp Plan on March 1, 1943.

Shortly after this, plans were made for 1942 production goals. In addition to requirements for normal consumption, stockpiles, and British and other export needs, the goals included quantities for increased consumption by needy families benefiting from the Food Stamp Program, and for direct distribution to school children and families not covered by the Stamp Program.

This latter development clearly established the new long-time objective of domestic disposal programs, namely to support the Department program for expanded production by giving necessary price support, while at the same time assuring that low-income consumers would in fact be able to get their share of the increased production. In this newest phase of federal agricultural policy, it would appear that the objective of agricultural programs is not only to request increased production, but to make specific price-supporting efforts to see that it takes place, and finally to make specific distribution efforts to see that the increased production is in fact distributed in accordance with the production plan.

In summary, the brief analysis of changing emphasis and policy appear to indicate the following stages in development of objectives:

1. Purchases as part of federal efforts to provide relief to needs unemployed families (1933-35).

2. Distribution to needs unemployed of commodities bought in connection with emergency, short-time surplus problems (1933-39).

3. Distribution to needy, unemployed and school children as part of a long-range program to build the domestic markets in order to meet domestic needs and to provide a substitute for uncertain export markets (1939-41).

4. Distribution to needy unemployed and school children as means of inducing specific production increase and to provide a specific outlet for a part of this increased production (1941-42).

Agricultural Marketing Administration

By executive order dated February 23, 1942, the Agricultura Marketing Administration (AMA) was created. This Administration consolidated the Surplus Marketing Administration (indirectly the Federal Surplus Commodities Corporation as an agency of the Department of Agriculture), the Agricultural Marketing Service (except the Agricultural Statistics Division) and the Commodity Exchange Administration of the Department of Agriculture.

The AMA is administered under the direction and supervision of the Administrator, Roy F. Hendrickson, who was designated by the Secretary of Agriculture. There are two Associate Administrators and two Assistant Administrators.

The general management functions and auxiliary services of the AMA are handled by several Divisions which are named Personnel, Administrative Services, Marketing Reports, Audit, Budget and Accounting and Investigations.

The line activities of the AMA are organized into units which are known as Branches. The names of these Branches are: Purchase; Distribution; Dairy and Poultry; Cotton; Tobacco; Grain; Feed and Seed; Livestock; Fruit and Vegetable; Commodity Exchange; and Transportation and Warehousing.

Purchase and Distribution of Commodities

The food purchases and disposal programmes with which this report is primarily concerned are largely functions of the Purchase and Distribution Branches.

Purchases continue to be made through the Federal Surplus Corporation, The functions of the Branch are: To make all purchases of foods necessary in

carrying out the programs of the Agricultural Marketing Administration, including those for Lend-Lease, Red Cross, direct distribution and school lunch; to be responsible for supervision and inspection, packaging, receipt, exchange, storage, transportation, sale and other handling of all goods purchased.

The functions of the Distribution Branch are: To direct the domestic distribution of all food products purchased under Agricultural Marketing Administration programs, including school lunch, direct distribution, and the stamp plan; to determine the conditions of eligibility for participation in Agricultural Marketing Administration distribution programs; to develop new outlets for agricultural commodities; and to conduct research in distribution methods.

Regional Offices.

The field activities of the AMA, which has its head office at Washington, D.C., are carried out through seven Regional Offices which are under the direction of Regional Administrators. The attached map shows the seven Regions and indicates the location of the Regional Office for each Region. (Figure 1)

Field functions of the Purchase and Distribution Branches are conducted by officers of these Branches located at the various field offices.

In brief, the objects of the Food Distribution Programmes of the AMA are:

1,- to raise farmers' incomes by increasing the distribution and consumption of their produce, and 2,- to use these food commodities so as to improve the diets of under-nourished children and families in the United States.

As pointed out above, in the early days of the Distribution Programmes the emphasis was placed on the first of these two objectives. In later years, particularly since the United States entered the war and surpluses of food commodities have largely disappeared, much more emphasis is being placed on the second objective. In designating the foods which are used for distribution to needy families these foods are not now called "surplus commodities" but are termed "commodities which are available in greatest abundance."

Food Distribution Programmes

The food distribution programmes now in operation are as follows:

1. Direct distribution to needy families
2. Food Stamp Plan
3. The School Lunch Programme
4. The School Milk Plan
5. Low-cost Milk for Relief Families.

The approximate cost to the Federal Treasury of these various programmes in 1941 were: Direct Distribution, $26,000,000; Food Stamp Plan, $112,000,000; School Lunch Programme, $23,000,000; School - and Low-cost Milk Plans $2,500,000.

The major part of the expenditures for milk were for school milk.

The estimated costs of the programme for 1942 were: Direct Distribution, $20,000,000; Food Stamp Plan, $80,000,000; School Lunch Programme, $30,000,000; Milk (school milk) $7,500,000.

It will be observed from these figures that in 1942 there has been a substantial decrease in the direct distribution of commodities and in the food stamp plan, but on the other hand the expenditure for providing commodities for school lunches and for school milk have been materially increased.

Included in the figures given above are administration costs, which amount to approximately 3% of the total expenditures.

The money for the purchase of commodities comes from a fund derived from

customs receipts. This fund is made up of 30% of the customs revenue and might be considered as representative of the farmers' contribution to the tariff protection enjoyed by industry. In addition to this principal source of funds current appropriations of Congress provide some additional moneys.

Families Eligible for Food Commodities.

The classes of families eligible for participation in the distribution of commodities by the AMA through Direct Distribution of the Food Stamp Plan consist of:

1. Social security families which are made up of those who maintain or who form part of a family unit and are receiving Old Age Assistance, Aid to Dependent Children and Aid to the Blind. In the United States the Federal Government matches dollar for dollar the funds provided by the State for persons in these social security categories.

2. WPA (Work Projects Administration) workers who have an income sufficiently low to be accepted as needy families. These are largely men and women who are paid by the Federal Government for work on public works projects of various kinds. The majority of these workers have incomes sufficiently low to be eligible for participation in the two programmes mentioned.

3. Persons receiving general relief from the state, country, or municipal agencies.

4. Non-assistance families - These are families who, because of their low incomes, are eligible for relief assistance but are not receiving any, and for whom there is no WPA work available. In this group may be included families who are employed but whose incomes are so low that they may be certified as eligible for participation in the Direct Distribution or Food Stamp Plans.

5. Farm Security families - These consist of farm families whose incomes and standards of living are very low and who in return for financial assistance from the Farm Security Administration are willing to have their farming operations and expenditures and their domestic budgets planned and supervised by officers of the Farm Security Administration. The number of families in this category is quite small.

Below is given a summary of the number of persons participating in the Direct Distribution and Food Stamp Plans in October 1942:

Table 1. Estimates Average Number of Persons Receiving Public Assistance and Participating in AMA Family Food Programs in the Continental U.S. Fiscal Year 1942-43

Category	Average Public Assistance Recipients	Average Number of Participants in: Food Stamp Program	Direct Distribution Program[1]	Total	Per cent of Total in Category
	----------000- Omitted----------				
Old Age Assistance	2,285	450	490	940	41.1
Aid to Dependent Children	1,371	550	370	920	67.1
Aid to the Blind	80	20	19	39	48.8
General Relief	1,705	600	375	975	57.2
WPA	1,575	300	185	485	30.8
Other Federal	50	10	20	30	60.0
Non-Assistance	1,250	300	535	835	66.8
Total	8,316	2,230	1,994[1]	4,224	50.8

(1) Excluding Puerto Rico.

The largest number of persons participating in either the Direct Distribution or the Food Stamp Plans in past years were as follows:

1. WPA worker families, about 3,000,000 persons
2. Families on general relief, about 2,000,000 persons
3. Non-assistance families, about 1,250,000 persons
4. Farm Security families, about 50,000 persons.

Certification of Families

Before any family is eligible to receive free food commodities under the system of Direct Distribution or eligible for participation in the Food Stamp Plan that family must be certified as a needy family by the state, county or city welfare agency. Such families must fall into the categories of Social Security Direct Relief, WPA, Farm Security or non-assistance Groups.

Direct Distribution of Commodities

In the early period of free disposal of commodities by the Federal Government to families with incomes inadequate to provide sufficient food, all commodities were distributed direct to such families through state, county or city welfare agencies. In the original stages of this development it was poorly organized and often the distribution was too far apart and too large or too small in quantity and frequently heavy spoilage developed. At the present time direct distribution of commodities is well organized and great care is used to see that the former difficulties and objections to this method of distributing commodities have been corrected.

In May 1939 the Food Stamp Plan was inaugurated in Rochester, N.Y., and since that time this plan has repidly replaced direct distribution methods in all areas of a number of states and in certain areas of other states (Figure 2.). The reasons for this change from direct distribution to the Food Stamp Plan will be presented later. By reference to Figure 2 it will be observed that from a geographical viewpoint the Food Stamp Plan is more important than direct distribution in the less thickly populated western states while direct distribution is still more important in the eastern states. More than half of the families receiving free food commodities still receive them by direct distribution methods. In November 1942 the number of persons participating in the Food Stamp Plan was 1,933,000 and in the Direct Distribution programme 2,143,000 persons.

When the production of agricultural products in any region is in excess of normal market requirements the situation is usually brought to the attention of the Department of Agriculture by producers of these products. The situation is investigated by officers of the Commodity Branch of the AMA concerned. For example, the Fruit and Vegetable Branch would study the supply and demand for such a commodity as apples and if the supply were greatly in excess of current market demands the Purchase Branch of the AMA would start to purchase the product in the regions where the product is in abundance. The amount purchased would to some extent be determined by the information received from state welfare agencies as to how much of the product could be distributed by direct distribution to needy families in their states.

Shortly before the author of this report went to the United States, in October 1942, many carloads of apples had been purchased by the Purchase Branch and were being distributed through direct distribution methods by the Distribution Branch to families which had been certified as eligible to receive free commodities, This was but one of the commodities which was being distributed directly to families in October 1942. Besides apples, beans (dried), wheat cereal, corn meal, graham and white flour, evaporated milk, prunes, rolled oats and certain fresh vegetables were the commodities being distributed to certified families. The kinds of fresh vegetables made available to these families varied according to the supply in different regions.

In addition to the distribution of food to families, certain commodities are distributed to welfare institutions of different kinds in the various states,

The total quantity of all kinds of commodities distributed directly to families and institutions during the fiscal year 1941-42 for the United States as a whole amounted to 822,250,818 pounds. The list and amounts of different commodities are shown in Table 2.

Method of Direct Distribution

Agreements are made by the AMA with state governments for the handling of the commodities which are purchased by the AMA for direct distribution to families and institutions. The state in turn usually makes agreements with county and city welfare agencies. In some few instances the AMA makes agreements direct with county welfare and city welfare agencies. These agreements require that the commodities which are provided by the AMA are handled in accordance with procedures which have been carefully worked out by the AMA officials.

The AMA arranges for the movement of carloads of the products to central state warehouses where they are stored for distribution to local warehouses scattered throughout the state, or for distribution by motor truck to needy families. Central and local warehouses are owned (or rented) by the state and are operated by the state. Some of the labour employed by these warehouses is usually WPA (Work Projects Administration) labour which is paid by the Federal Government. The manager of the warehouse and some of the employees who handle commodities and the operators of the trucks which transport the AMA commodities are usually paid by the state.

The commodities stored in these warehouses are maintained in good condition because the AMA stipulates how they shall be piled and protected against temperature changes, weather and insects and AMA inspectors periodically visit these warehouses to see that the AMA regulations concerning the storage of commodities are properly carried out.

Distribution to Families.

Information about the families making application for commodities, such as size and income, is taken by the local welfare agency before the family is certified as eligible for free commodities and each family is given a card which must be presented at the local warehouse when the family representative calls for a supply of commodities. In most cases a representative or representatives of the family come to the local warehouses weekly or twice a week to obtain their supplies.

The quantity of each kind of food that a family is entitled to receive is determined by the regional AMA office and this quantity usually varies according to the income and size of the family. The state or county officer responsibile for the distribution to the families is required to follow this schedule of quantities.

In some districts commodities are carried in regular truck routes from warehouses to towns and villages, and eligible families meet the trucks at the nearest point to their homes and obtain the commodities provided for them.

Table 2. Quantities of Agricultural Commodities Distributed Directly by AMA, Fiscal Year 1942 (In pounds).

Commodity	Distribution to families, institutions and others	School lunch distribution
Dairy Products & Eggs	23,737,736	44,494,318
Butter	1,575,705	4,618,575
Dried skim milk	358,047	2,982,477
Evaporated milk	8,726,280	26,828,939
Cheese	14,260	20,693
Egg Yolks	1,111,518	275,299
Eggs	11,951,926	9,768,135
Cereals & Flour	338,358,639	65,770,351
Rolled Oats	20,424,496	5,767,938
Wheat cereal	29,103,662	5,085,284
Corn grits	23,679,338	4,626,834
Corn meal	61,452,026	9,084,496
Graham flour	77,930,154	12,373,796
White flour	123,674,878	27,840,704
Rice	2,094,085	991,299
Fruits	259,245,089	222,593,171
Apples	140,966,859	113,090,962
Apricots, dried	381,353	155,207
Grapefruit, fresh	33,947,870	43,374,552
Grapefruit Juice, Cd.	4,649,268	30,722,427
Grapefruit seg., cd.	191,721	8,283,951
Loganberries, Cd.	3,657	30,049
Oranges	19,958,572	5,433,070
Peaches, Cd.	1,260,242	1,176,109
Peaches, dried	565,763	496,643
Peaches, fresh	14,284,210	1,449,691
Pears, dried	1,314	111
Plums, fresh	1,145,815	66,762
Prunes, dried	33,128,598	16,612,122
Raisins, dried	8,759,847	1,701,515
Vegetables	176,252,120	93,264,328
Beans, dry	41,690,480	12,415,490
Beans, green	46,284	2,203
Pork & Beans, Cd.	556,399	42,392,925
Beets, fresh	1,957,615	79,060
Cabbage	23,081,968	10,388,520
Carrots	1,567,730	81,473
Cauliflower	62,881	15,844
Celery	31,980	1,041
Corn, fresh	601,535	59,433
Onions	3,421,198	97,631
Peas, fresh	1,693,791	53,511
Potatoes	73,351,718	7,423,077
Squash	1,784,822	384,580
Sweet potatoes	20,402,229	5,092,569
Tomatoes, cd.	241,136	14,395,817
Tomatoes, fresh	1,465,585	121,178
Vegetables, mixed	4,294,769	259,976

Table 2. Continued

Commodity	Distribution to families, institutions and others	School lunch distribution
Meats & Misc.	24,657,234	28,381,135
Bacon	89,030	5,301
Ham	166,807	1,451,898
Salt pork	7,186,826	6,994,158
Frozen meats	108,481	554,769
Lard	16,236,128	8,100,036
Honey	33,240	2,430,489
Peanut butter	183,662	3,607,753
Pecans	21,365	1,255,183
Dehydrated soup	602,701	3,656,794
Syrup	28,994	324,754
Total	822,250,818	454,503,303

The handling of the commodities at the present time is done in a very efficient manner. The methods used in the purchase, transportation and storage have been carefully worked out by the AMA officials and the distribution methods employed by state and county welfare agencies are supervised in such a way that the loss and wastage are extremely small.

The provision of commodities for school lunch programmes constitutes another aspect of direct commodity distribution. Such commodities are usually handled through the same central and local warehouses. The school lunch programme of the AMA will be discussed in considerable detail later in this report.

Direct Distribution vs Food Stamp Plan

The particular reasons why the Food Stamp Plan has in many regions replaced direct distribution of commodities have been:

1. That direct distribution tends to break down the initiative of the recipient of the commodities. Under the Food Stamp Plan, as will be described later, the families have an opportunity of choosing the foods they wish to use.

2. The Food Stamp Plan has been designed to maintain the normal purchases of foods by the participating families and to a considerable extent that feature of the plan has been sucessful. Under direct distribution the commodities distributed may entirely replace customary purchases by the families and to the extent that that is true there is no increase in the distribution of consumption of food products.

3. Under the Food Stamp Plan the regular channels of the food trade are employed, which is not the case under direct distribution methods.

Direct Distribution has, nevertheless, certain advantages:

1. Specific items of food can be moved quickly into consumption by direct distribution while under the Food Stamp Plan this is more difficult, although the Food Stamp Plan may provide for the movement of more total commodities.

2. Direct Distribution methods can also be used for moving into consumption commodities which have been purchased for Lend-Lease shipments but

which for some reason cannot be shipped and if held for a considerable time might deteriorate.

3. For supporting the price of an agricultural commodity, direct distribution methods are more quickly effective.

4. The Food Stamp Plan is somewhat more costly to the state and local welfare agencies to operate where there are state and local warehouses available for handling AMA commodities direct to needy families.

While there are now more food shortages than food surpluses in the United States there are still a number of commodities which are available in considerable abundance, such as wheat flour, rolled oats and corn meal, and there are seasonal surpluses of different commodities. Direct distribution of such commodities to families whose diets are deficient will likely be continued even under war conditions. There are abour eight million people in the United States (Table 1.) who are considered as unemployed and a considerable proportion of these are unable to purchase sufficient food for an adequate diet.

The Food Stamp Plan

The Food Stamp Plan was operated for the first time at Rochester,N.Y., in May 1939. Its popularity spread rapidly and the Federal Government received applications faster than they could establish the plan in different areas. The plan now covers a large part of the United States. The Food Stamp Programme was in operation in 1467 country and 86 city areas in November 1942. About eighty-one million persons, 61.6 per cent of the total United States population, live in operating areas (Figure 2.). In simple terms, under this plan needy families are given Government stamps which they exchange at the corner grocery store for certain food commodities. The Government buys back the stamps from the grocer with funds appropriated by Congress for this purpose. As pointed out above, the Food Stamp Plan was created and put into action for several reasons, but principally because the plan attempts to maintain normal food purchases of participating families and the commodities which are provided free by the Federal Government really constitutes additional food for such families. In addition to this reason, private food merchants considered the direct distribution of free commodities a form of unfair competition and claimed that there were plenty of grocery and other retail stores to handle the products which were considered as surplus above normal market demands. Another but less important objection to direct distribution methods was that there was not enough "human dignity in a system which required people to stand in line at depots to receive food allotments."

Orange and Blue Stamps

The plan is simple. Families certified by state, county or municipal welfare agencies as being in one of the different categories eligible for assistance may participate. There is but one certifying agency to an area. A stamp issuing office is set up and is manned by employees of the official certifying body. In the United States provision of aid to needy families is almost entirely in the form of money rather than food vouchers. Certified families go to the local stamp issuing office and purchase orange stamps (in some areas purchases are made by mail), and in most areas for each dollar's worth of orange stamps purchased these families will obtain fifty cents' worth of blue stamps free. Each orange and blue stamp has a value of twenty-five cents.

With the orange stamps a family may purchase any kind of food product at local stores which will exchange food for orange stamps. In areas where the Food Stamp Plan is in operation practically all food stores have authority to merchandize food under the Food Stamp Plan. Blue stamps can be exchanged only for certain commodities which in the days of abundance were called "surplus" products but are now classed as blue stamp foods and these products are mainly those which are in greatest abundance.

Tobacco, beer, wine or other liquor, matches, poultry or dog food, or any other commodity which is not human food, cannot be purchased with orange stamps. Lists of blue stamp foods are posted in all food stores which participate in the plan. These lists are changed from time to time by the AMA as surpluses appear or disappear. In the main, these blue stamp foods, with the exception of local surpluses of fruits and vegetables, are available to the blue stamp holders in all of the states of the union.

Persons using blue stamps exchange them for the same products (products on blue stamp list) as those who pay cash and the price remains the same. The retailer cannot give cash in change for blue stamp products of less than twenty-five cents but he may give a credit slip for the difference. If a product which may be purchased with blue stamps costs more than twenty-five cents the buyer may use a second blue stamp or may make up the balance with cash. Blue stamps can be used only by one of the family to whom the stamps are issued. They cannot be given to other families nor can such stamps be used to pay old bills or accounts.

The food merchant pastes the stamps on Food Stamp Cards and may redeem them for cash at an AMA audit office, the local bank, or turn them over to the wholesaler in payment for goods purchased from him. Under this plan the Government does not enter into the distribution of the commodities because all the commodities are handled through the regular channels of the food trade.

Before a Stamp Office is established the county or municipality must provide a sum of money as a revolving fund to purchase orange stamps from the Federal Government, (usually about five dollars per family). This fund is always intact because it is constantly replenished by the sale of orange stamps to participating families. In addition, the official welfare agency must pay the rent of the office and also the salaries and wages of the employees. The AMA provides the stamps and record forms.

As soon as a Food Stamp Plan has been granted to a city or county a local "Food Stamp Plan Committee" is formed. This is usually composed of civic leaders, representatives of the food trade and other local interests. The purpose of this committee is to work with government officials, merchants and the public as a liaison committee to help Stamp Plan officials to start the plan and assist in its continued operation.

Centralized Issuance of Stamps.

Local offices in cities, towns and villages manned by a staff which is paid by the state, county or city welfare agency, is the most common type of stamp issuing office but a number of the western states and some of the eastern and southern states which are largely rural in character have, or are in the process of setting up a central state Food Stamp mailing office, This central office received orders for Food Stamps by mail and also uses the mails in sending out the Orange and Blue Stamps to certified families. For most of the food stamps ordered in this way Post Office Money Orders are used rather than cash. This plan has obvious advantages for rural areas particularly when tires and gasoline are scarce. For more thickly populated areas it is claimed to have the advantage of not requiring participating persons to stand in line to obtain their stamps if they must go to the local office at busy hours. Under the mailing plan only the groceryman needs to know who obtains free food orders.

For most of these central mailing offices the records are maintained by the aid to the Hollerith card system. It has been shown by experience that the centralized mailing office can be operated at about one-third less in cost than local offices.

The centralized mailing office is replacing local offices in some states where both plans are in operation when the number of cases at the local offices have been reduced, as a result of greater employment, to a point that the local office expenses are too high per case to continue their

operation. In such instances it usually means either giving up entirely the Stamp Plan or transferring the issuance of stamps to the central state mailing office. It has also been learned that where the centralized plan of issuance of stamps has been substituted for local stamp offices participation of eligible families in the plan has increased slightly, possible for the reason that some people are reluctant to appear at the local stamp office to obtain their stamps. It has also been learned that after a local stamp office has been established for some time participation has increased as families begin to understand the plan and to overcome their reluctance to going to the office to buy their stamps.

Minimum Purchase of Orange Stamps

During the early months of operation of this plan certified families were required to purchase orange stamps to a minimum of one dollar per person per week but they were also allowed to purchase stamps up to a maximum of one dollar and a half per person per week. When this plan was first instituted the requirement that orange stamps must be purchased to the value of one dollar per person per week was based on surveys of food consumption which indicated that that was the amount of money which, on the average, low-income and relief families spent for food - in other words, it was customary for these low-income families to spend five cents per person per meal for food. This purchase of orange stamps therefore represented the normal or customary expenditure, and before these families could obtain blue stamps with which to purchase additional food items they were expected to maintain their normal purchases of food by buying orange stamps to a minimum of one dollar per person per week. The additional food obtainable from the blue stamps raised the average value of food consumed at each meal from five cents to seven and a half cents per person.

When the Food Stamp Plan was established in the southern states it was learned that the welfare allowances to social security families and to families on relief were in most cases so small that they could not afford to spend one dollar per week per person for food, so the minimum purchases of orange stamps was reduced from one dollar to less than one dollar, usually seventy-five or eighty cents per person. Also, in many cases blue stamps to the same value as the purchases of orange stamps were and are being provided.

Families on relief which are receiving vouchers for food instead of money may exchange those vouchers for orange stamps in an amount equivalent to their food allowances.

Changes in Basis of Issuance of Stamps

After many months of experience and extensive studies of food purchase habits of participating families significant changes have been made in the basis of issuance of orange and blue stamps. Now in most states the minimum and maximum purchases or orange stamps by certified families are determined by the size and income of the families. Minimum expenditures for food for maintaining health have been worked out for different regions of the United States and are used as a basis of issuance of stamps.

In establishing the minimum value of orange stamps that must be purchased the endeavour has been to make it necessary for the family to spend for orange stamps the amount that would be spent for food if there were no Food Stamp Plan. At the same time the amount that must be spent for orange stamps in order to participate in the plan must be such that it will be possible for needy families to participate in the plan without serious dislocation in the budgeting of all the living costs which the families must meet. The nutritional objective to the plan has been to provide sufficient blue stamps, which together with purchases of orange stamps, will permit families to obtain a nutritionally adequate diet.

Food purchases by any group of families of the same size vary considerably even though income be the same. Individual families make different food choices and budget their total resources differently; therefore, some families have desired and have been able to purchase more than the minimum

orange stamp requirements, and, for that reason maximum purchases have been provided in almost all areas for the different income and size-of-family groups.

As an example, the maximum and minimum basis of issuance of orange stamp for the State of Pennsylvania, according to size and income of family is shown in Table 3.

The basis of issuance is somewhat different in different states. In the State of Pennsylvania as well as in most other areas blue stamps are provided to a value equal to half the orange stamp purchases.

The issuance of blue stamps to half the value of orange stamps has been questioned in some areas. For the city of Baltimore, Md., there has been worked out a variable basis of issuance of orange and blue stamps according to different incomes and sizes of families. In that city there is only a minimum issuance of orange stamps, and no maximum, and the value of the blue stamps does not represent half the value of the orange stamps. This is the only city or area where this plan is being followed at the present time and it is somewhat in the nature of an experiment, the basis of issuance of orange and blue stamps for Baltimore is shown as Table 4.

TABLE 3. PENNSYLVANIA BASIS OF ISSUANCE - Effective August 1, 1942

FOOD STAMP PURCHASE REQUIREMENTS
FOR ALL PARTICIPANTS

Size of Stamp Plan Household	MONTHLY STAMP PLAN INCOMES													
	$10.01 20.00	$20.01 30.00	$30.01 40.00	$40.01 50.00	$50.01 60.00	$60.01 70.00	$70.01 80.00	$80.01 90.00	$90.01 100.00	$100.01 110.00	$110.01 120.00	$120.01 130.00	$130.01 140.00	$140.01 150.00
	MONTHLY PURCHASE REQUIREMENTS													
	Min-Max.			Min-Max.	Min-Max.	Min-Max.	Min-Max.	Min-Max.	Min-Max.	Min-Max.	Min-Max.	Min-Max.	Min-Max	Min-Max.
1	8-10			x	x	x	x	x	x	x	x	x	x	x
2	10-12			18-22	20-24	x	x	x	x	x	x	x	x	x
3	x			22-25	24-29	26-31	28-34	x	x	x	x	x	x	x
4	x	18-22	22-25	25-30	28-34	30-36	32-39	34-41	36-43	x	x	x	x	x
5	x	x	25-29	28-34	31-37	34-41	36-43	38-46	40-48	42-51	44-53	x	x	x
6	x	x	28-33	31-37	34-41	37-45	40-48	42-51	44-53	46-55	48-58	49-59	50-60	x
7	x	x	x	33-40	37-45	40-48	43-52	45-54	47-57	49-59	51-61	52-63	53-64	54-65
8	x	x	x	35-46	39-51	42-55	45-59	47-61	49-64	51-67	53-69	54-71	55-72	56-73
9	x	x	x	x	41-56	44-59	47-63	49-65	51-68	53-70	55-72	56-74	57-75	58-76
10 and over	x	x	x	x	43-59	46-62	49-66	51-68	53-71	55-73	57-75	58-77	59-78	60-79

In each case, the first figure is the minimum orange stamp purchase requirement, and the second figure is the maximum allowable purchase.

These amounts are reduced by $2.00 for each person included in a milk grant and by the full dollar amount nearest to the monthly deduction for home produced food.

Purchase intervals marked "X" are excluded.

Table No. 4. January 3, 1942.

BASIS OF ISSUANCE FOR BALTIMORE, MARYLAND

Household Size	Income $10-20	$20.00 29.99	$30.00 39.99	$40.00 49.99	$50.00 59.99	$60.00 69.99	$70.00 79.99	$80.00 89.99	$90.00 99.99	$100.00 109.99	$110.00 119.99	$120.00 129.99	$130.00 139.99	$140.00 149.99	Minimum cost of adequate diet	Moderate cost of minimum adequate diet
1	(1) 0-10 B-5	(2) x	x	x	x	x	x	x	x	x	x	x	x	x	$16.	$16.
2	x	0-16 B-8	0-18 B-6	x	x	x	x	x	x	x	x	x	x	x	24.	30.
3	x	0-18 B-14	0-22 B-11	0-24 B- 9	0-28 B-6	x	x	x	x	x	x	x	x	x	32.	40.
4	x	x	0-24 B-16	0-28 B-12	0-30 B-10	0-32 B- 8	0-34 B- 6	0-36 B- 6	x	x	x	x	x	x	40.	50.
5	x	x	0-26 B-20	0-30 B-20	0-32 B-18	0-36 B-14	0-38 B-12	0-40 B-10	0-42 B- 8	0-44 B- 6	0-46 B- 6	x	x	x	50.	60.
6	x	x	x	0-32 B-24	0-34 B-25	0-38 B-21	0-40 B-19	0-42 B-17	0-44 B-15	0-46 B-13	0-48 B-11	0-48 B-11	0-50 B- 9	0-50 B- 9	60.	70.
7	x	x	x	0.32 B-24	0.36 B-27	0.40 B-28	0.42 B-26	0.44 B-24	0.46 B-22	0.48 B-20	0.50 B-18	0.50 B-18	0.52 B-16	0.52 B-16	70.	80.
8 and over(3)	x	x	x	x	0.38 B-29	0.42 B-32	0.44 B-33	0.46 B-31	0.48 B-29	0.50 B-27	0.52 B-25	0.52 B-25	0.54 B-23	0.54 B-23	80.	

(1) "O" means orange stamp requirement; "B" means free blue stamps issued.

(2) "X" means excluded.

(3) Families of more than 8 may purchase above the indicated orange stamp requirement to the extent of $1. per additional household person per month and receive blue stamps at the rate of one blue to two orange.

Violations

It could hardly be expected in a plan so widespread as the Food Stamp Plan that there would not be certain violations of the regulations issued under this plan. These, however, have not been serious enough to be of any great consequence in the general success in operating the plan. Where close retailer-customer relationships exist, and such are quite common, transactions may take place which are contrary to Food Stamp Plan regulations but these are very difficult to unearth. The fact that violations of the Food Stamp Plan are Federal offences helps to keep them to a minimum. Moreover, store-keepers who deliberately violate the regulations may not be permitted to continue to operate under the plan and they may thereby lose considerable business, which is a further deterrent to violations of the Food Stamp Plan rules. Giving commodities for blue stamps which are not on the Blue Stamp Lists does occur, as well as giving non-food commodities, such as tobacco, for orange stamps. Selling blue stamps to the grocer for cash is another type of violation. The latter most often occurs when the blue stamp allowance is too large. The Distribution Branch of the AMA has an enforcement staff whose duties consist of locating, correcting and, where necessary, prosecuting violators.

Blue Stamp Commodities

The list of food available for blue stamp holders for Alabama, Florida, Georgia, Kentucky and Tennessee, in October 1942, were as follows:

Shell eggs	Corn meal	Wheat flour
Dry onions	Sweet potatoes	Self-rising flour
Fresh apples	Irish potatoes	Enriched wheat flour
Hominy (corn grits)	Dry edible beans	Enriched self-rising flour
		Whole wheat (graham) flour

Fresh vegetables (except those which have been frozen, canned, dried, or pickled, (but does not include avocados, melons, or rhubarb).

Blue Stamp Lists for other states were in the main quite similar to that mentioned above.

In some areas during October shell eggs were selling at sixty-five cents per dozen yet they were included among the blue stamp foods. The reason for the inclusion of this high-priced, more-or-less scarce, product, according to AMA officials, was the need for an animal protein food amongst the free foods available for needy families.

The Distribution Branch of the AMA has an Economic Analysis Division which is constantly making studies of various aspects of the Food Stamp and other distribution plans. One of these studies is to learn the quantities and values of the purchases of different kinds of food with blue stamps. Up to the present this information has been obtained from retail storekeepers who have kept records of the foods which have been exchanged for blue stamps. As a result of experience and experiments this method of obtaining information on blue stamp purchases is being replaced by the gathering of similar information from participating families.

The value of the foods purchased with Blue Stamps was approximately $16,500,000 in the fiscal year 1939-40 and rose to almost $211,000,000 in the fiscal year 1941-42 (Table 5.). The quantities of each commodity purchased with Blue Stamps is also shown in Table 5.

Some Difficulties Encountered

It is difficult to determine exactly to what extent blue stamp purchases actually represent food purchases which are additional, and not a substitution for, food which would normally or customarily be purchased. Studies of food-purchase habits of low-income families do throw some light on this subject and the more recent changes in the basis of issuance of stamps it is believed has the effect of increasing food purchases to the extent of the value of the blue stamps. While the Food Stamp Plan as operated has

increased the total consumption of food by participating families it has not proven as successful in moving specific commodities as producers of certain commodities have desired. When the list of blue stamp commodities is large this is particularly true. Several ideas are being explored by AMA officials for changes in the operation of the Food Stamp Plan when it is desired that specific commodities be moved quickly. One of these is to place on the blue stamp list only a few commodities, or in other words commodities that have to be moved quickly. The blue stamp list could in such a case be changed frequently. Another idea which has been advanced is to require that a certain number of blue stamps must be used for certain commodities before other commodities on the list can be obtained. Still another suggestion is that different coloured stamps be used for different commodities, i.e., one colour for meats, another colour for fruits and vegetables and another colour for cereals, and so forth. In the last mentioned plan difficulties in administration would be encountered and possibly substantial added costs.

Why Some Families Do Not Comply

A number of studies have been made by the Economic Analysis Division of the Distribution Branch as to the reasons why some eligible low-income families do not take advantage of the Food Stamp Plan in areas where it is in operation. Two of the most important reasons for non-participation were, first, that many of the eligible families did not believe they needed any more food, and second, that there was a lack of understanding of the Food Stamp Plan. Another but less important reason for non-participation of eligible families was that the minimum purchases of orange stamps were too high, or in other words certain families were not prepared to spend on food, or their relief allowances were too small to permit them to spend on food the amount that would be necessary for the purchase of orange stamps even though they obtained blue stamps free with which to supplement the food purchased with orange stamps.

A Criticism of the Plan

One criticism which has been made of the Food Stamp Plan is that wholesaler and retailer costs are added to the blue stamp foods before they are available to low-income families. The cost to the government is therefore said to be higher than if distribution were direct to needy familes. Marketing margins of the food trade are not involved in the case of foods provided for low-income families by direct distribution methods. In answer to this criticism of the Food Stamp Plan, AMA officials state that the wholesale and retailer margins are little, if any, higher than the costs involved in direct distribution of surplus foods.

Introduction of New Products

It was pointed out by the AMA officials that certain new kinds of foods, such as soybeans and peanut products could be more quickly introduced to consumers by the Food Stamp Plan than by ordinary methods of merchandizing.

Food Scrip Plan

One of the AMA officials (Mr. Nicholas A Luongo of the New York City AMA Office), has developed a Food Scrip Plan for distribution of food commodities to needy families. In principle the plan is the same as the Food Stamp Plan but instead of stamps scrip is used and the entire procedure of handling records and accounts is by the use of Hollerith tabulating equipment. The advantage of the Food Scrip Plan as compared with the Food Stamp Plan according to Mr. Luongo, is a substantial reduction in operating costs such as clerical, accounting and printing. Should the distribution of commodities to low-income families be considered for Canada, consideration should be given to the possibility of using a Food Scrip Plan.

Nutrition of Participating Families

Better nutrition in participating families has been encouraged by the distribution of educational literature on better diets by the use of proper

Table 5. Blue-Stamp Purchases by Commodities During the 1939-40, 1940-41 and 1941-42 Fiscal Years. (1)

— thousands —

Commodity	Unit	Quantities purchased (2)				Expenditures			
		1939-40(3)	1940-41	1941-42	Total	1939-40(3)	1940-41	1941-42	Total
Butter	lbs.	9,546	28,892	24,919	63,357	2,997	10,181	10,246	23,424
Eggs	cases	405	1,534	1,960	3,899	2,643	11,430	20,176	34,249
White flour	bbls.	340	1,502	2,097	3,939	2,230	9,952	17,153	29,335
Graham flour	bbls.	5	24	30	59	43	206	289	538
Rice	cwt.	44	195	0	239	260	1,125	-	1,385
Corn meal	bbls.	60	350	513	923	327	1,951	3,338	5,616
Hominy grits	bbls.	4	49	110	163	43	441	954	1,438
Dry beans	cwt.	80	434	751	1,265	543	2,788	6,119	9,450
Potatoes	bus.	0	4,569	6,325	10,894	-	4,379	8,728	13,107
Other vegetables	tons	6	50	187	243	315	2,996	15,323	18,634
Dried prunes	unit tons	1,692	7,172	10,261	19,125	268	1,159	2,127	3,554
Raisins	unit tons	1,348	6,015	4,293	11,656	209	951	781	1,941
Grapefruit	boxes	160	770	533	1,463	290	1,305	1,290	2,885
Oranges	boxes	69	1,485	404	1,958	983	4,116	6,725	11,824
Apples	bus.	374	1,640	2,104	4,118	572	2,859	3,932	7,363
Peaches	bus.	36	100	829	965	67	181	1,311	1,559
Pears	bus.	22	163	414	599	54	356	1,036	1,446
Plums & Prunes	bus.	0	0	117	117	0	0	324	324
Veg. shortening	lbs.	0	664	140	804	0	76	22	98
Lard	lbs.	10,015	57,108	7,041	74,164	855	5,226	885	6,966
Pork	lbs.	22,984	111,083	47,153	181,220	3,839	21,138	10,813	35,790
Total		-	-	-	-	16,538	82,816	111,572	210,926

(1) Not including expenditures in Virgin Islands of $3,533 during 1940-41 and $68,433 during 1941-42.
(2) Retail quantities adjusted for wastage occurring in distribution process.
(3) Includes May and June 1939.

Source of Data: Records of Economic Analysis Division
Distribution
Agricultural Marketing Administration

Note: Not adjusted for possible loss or misuse of blue stamps

foods, and particularly the blue stamp foods. In some areas special courses have been given by nutritionists to educate low-income families as to how to purchase and use the more healthful foods.

Food Stamp Plan under Post War Conditions

In October 1942, AMA officials stated that the Food Stamp Plan would not be further expanded while the war continues but the whole machinery of the plan will be maintained at the Washington Headquarters, the Regional Offices and in the areas where the plan is now operating, except of course where local welfare agencies find it impossible or undesirable to continue to operate stamp offices(1). The machinery of the Plan will be maintained so that after the war should surpluses of food products develop, the Plan can continue to operate effectively. Officials of the United States Department of Agriculture do not appear to be particularly concerned that the great increase in the production of foodstuffs which has occurred since the war started is likely to result in any serious difficulties to United States farmers if exports decline after the war as they believe surpluses of agricultural products can be distributed to the millions of people in the United States who need additional food products in order that they may have an adequate diet. True democracy for the United States, they believe, demands that no citizen shall suffer from lack of food in a nation which can produce quantities of food sufficient for not only a minimum but a liberal diet for every person.

The Present School Lunch Programme in the United States (2) (3)

The first step in describing the part played in the present school-lunch movement in the United States by the AMA programme is to examine the mechanism by which surplus foods are made available for lunches for needy children. What must schools do to obtain this food, how is it supplied to them, and how much and what kinds do they receive?

Role of Local Agencies

Lunch projects in the schools that participate in this programme are operated under the sponsorship of local agencies. Responsibility may be taken by educational or welfare authorities, by mothers' clubs or parent-teacher associations, by local branches of civic or fraternal organizations, or even by private individuals. W.P.A. or N.Y.A. labour may be obtained for operating the programmes, or the sponsors may do the work themselves. But if they serve or plan to serve lunches to needy or undernourished children, they are entitled to apply to the local office of their State welfare administration to receive commodities supplied by the AMA.

If the local welfare authorities find a need in the school, and if the sponsors agree to abide by the regulations governing the use of surplus commodities, the school may obtain whatever foods the local commodity warehouse of the welfare administration has available, in quantities proportional to the number of children certified to receive free lunches.

Sponsors must agree that their normal food purchases for school lunches will not be curtailed because of the availability of these surplus foods. No charge can be made for the foods when they are served to certified children. If paying children as well as non paying children are fed, a distinction must not be made between them in serving the lunches. A school lunch project operated for profit cannot receive these commodities. Any margin of receipts over costs must be reinvested in the project.

(1) Since the above was written it has been announced that the Food Stamp Plan will be suspended on March 1, 1943, probably for the duration of the war.

(2) See Appendix A, Pages 56-59, for outline of School Feeding in England, France other European Countries, South American Countries and the development of School Feeding in the United States.

(3) A recent release from the U.S. Department of Agriculture states that distribution of foods for School Lunch Programmes will be discontinued on April 30, 1943.

Certification of Children

Children are usually certified on the basis either of home financial status or of physical condition. In the former case, the teacher, principal, or other school authority who is familiar with the child's home conditions may certify to his need for the lunches, or public-welfare authorities may investigate it. In the latter case, the school nurse or other health official may declare the child undernourished on the basis of physical examination. In rural schools that serve a homogeneously poor population the entire school enrollment is sometimes certified, but in most schools children are certified individually.

Various systems are used to avoid setting up distinctions between paying and nonpaying children. A common system has the teacher issue identical tickets to all children once a week or before they go to lunch. Certified children are given tickets free, and the others pay a nominal sum, usually weekly. Another method is to have parents who are able to do so make periodic contributions of money or food directly to the sponsor of the project. Under either of these systems no money changes hands in the lunchroom.

Role of the Federal Government

Local sponsors receive free commodities from warehouses that are maintained by their State or local welfare agencies. The Federal Government enters the picture in providing the food to fill the warehouses. These are the same warehouses from which commodities for direct distribution are made available to needy families. These commodities are supplied to the State welfare administration by the AMA, through its Direct Distribution Programme, of which the School Lunch Programme is a part.

Regulations Governing the Use of Commodities

As in the case of commodities supplied for direct distribution to needy families, the requirements imposed by the AMA upon State welfare agencies receiving commodities for school lunches are designed to make sure that they are not wasted or misused. The State must maintain proper facilities for handling the foods; warehouses must be in good repair, clean, and well-managed; refrigerated storage must be provided for butter and other perishables. Under no condition may the commodities be sold. They must be used to supplement, not to substitute for, normal relief allowances by the welfare agency, and in general must be prevented from competing in any way with the marketing of the same commodities through regular commercial channels. Therefore agreements are required from school lunch sponsors that they will not substitute surplus allotments for purchases that they would otherwise make.

What Schools May Receive Surplus Foods?

A school to be declared eligible must be supported by funds derived from Federal, State, or local governmental subdivisions. Other schools supported by funds derived from educational, religious, or charitable organizations may, at the discretion of State or local certifying agencies, be determined eligible.

Private and parochial schools which make application, may, at the discretion of the State or local certifying welfare agency, be determined eligible to receive AMA foods for child feeding. The Agricultural Marketing Administration recognizes only the welfare of the child and in no instance considers participation in the lunch programme a subsidy to the institution in which the child is enrolled.

The eligibility of a school to receive AMA foods is determined by the local certifying welfare agency on a basis of need and evidences of malnutrition in the children attending the school.

Quantities of Foods Allotted Per Child

The maximum quantities of commodities that families, schools, and

other recipients may be given monthly have been determined by the AMA with the cooperation of the Bureau of Home Economics. Upper limits are set not only for individual food items but also for groups of similar foods. Thus the maximum allowance of most cereal foods is 1 pound per child per month. For all the cereals combined, however, it cannot be more than 6 pounds per child.

This does not mean that all those foods are continuously available to schools. On the contrary, what foods are provided at any time and how much of them depend on the current purchase programmes of the AMA.

The actual amount and variety of food supplied has increased markedly, however, with the growth of the programme. More children have been fed, and more food has been provided per child. As shown in Table 6, the number of pounds of food per child has doubled, and its estimated retail value per child has trebled as the programme has developed.

This reflects partly the shifts which have occurred in the types of commodities chiefly distributed. Meat, mainly canned beef bought because of the drought in the Middle West, accounted for more than half the value of food distributed in 1935-36 and for nearly a third in 1936-37. Since then it has been a negligible item, while dairy products and fresh fruits have risen to chief importance. (The increase in fruit is partly due to the greater number of schools now in the programme that do no cooking, and, therefore, accept only commodities that can be eaten raw, chiefly fruits.)

Table 6. Average Quantity and Value per Child per Month of Foods Supplied by the Agricultural Marketing Administration for Use in the School Lunch Programme 1937-40

Year beginning July	Average pounds per child per month	Estimated retail value per child per month
	Pounds	Dollars
1937.....	5.28	0.29
1938.....	4.80	.41
1939(1).....	6.54	.50
1940.....	11.49	.86

(1) July 1940 through March 1941.

Quantities of Commodities Supplied

Approximately 454,500,000 pounds of agricultural commodities were distributed to schools for lunches during the fiscal year 1942 (Table 2). About fifty different kinds of commodities were supplied.

Type of School Lunches

The purpose of the School Lunch Programme is to provide each child attending school with at least one balanced meal per day. The underlying principle of the School Lunch Programme is that the under-privileged child has as great a need for, and an equal right to, nourishing food as does his more fortunate classmate. While the goal of the School Lunch Programme is the serving of complete, well-balanced lunches, the AMA has recognized the present impossibility of all schools to sponsor such an ambitious programme. In order that the poorer less well-equipped schools would not be penalized, the AMA, through State distribution channels, makes commodities available for three types of lunches - complete, partial and cold - and in some instances school breakfasts:

Type 1. The Complete Lunch is ordinarily a hot lunch and is well-balanced as to its nutritive content. The ideal, in recognition of the food needs of the children, is for the lunch to provide one-third of the day's allowance of grain product, potatoes, dry beans, peas, nuts, sugar and fats other than butter, one-half of the day's allowance of protective

foods - milk, fruits, vegetables other than potatoes and dry legumes, eggs, butter and meat. It is clear that in this type of lunch the sponsor's contribution is an important factor. The AMA commodities are an important and integral part of the lunch but they do not and cannot provide the variety necessary to well-balanced menus.

Type 2. Balanced School Lunch. Schools are eligible to receive commodities for this type of lunch when they have limited cooking and serving facilities. It is expected that they serve at least one hot dish a day in addition to the supplemental foods that require no preparation. This type of lunch obviously does not have as high a nutritive value as the well-balanced complete lunch, but it is useful as it is and indicates potential possibilities.

Type 3. The Cold Lunch. While the least desirable of the three types, the cold lunch serves a real need in that it makes important foods - such as fresh and dried fruits - available to children who do not have them with regularity. This type lunch is usually in small rural schools where there is neither space nor equipment for preparing and serving hot dishes. It should be well supervised to insure that the food is put to the best possible use, as well as to encourage its expansion into a more adequate feeding programme.

Type 4. The School Breakfast - consisting usually of a cereal and fruit juice - is designed primarily for schools where the children come from considerable distances. If a child, in order to reach school, has his breakfast from five to seven hours before mid-day, he needs a pre-noon meal such as the School Breakfast provides.

Visits to School Lunches by the Author

The author of this report during his stay in the United States in October 1942 visited schools in Pennsylvania, Georgia and Mississippi, where school lunches were being served. The pupils in some of these schools were coloured, in some the pupils were white, and in one school in Philadelphia both coloured and white pupils attended.

The price of the noon meals varied from two cents per pupil in a low-income coloured school to fifteen cents in a white school in a more prosperous area. The coloured school on the day visited served hot corn bread, boiled white beans and baked apples with brown sugar, but no beverage. The cost of this lunch was two cents per pupil. In this case all of the commodities used were supplied free by the AMA. The two coloured women who prepared the food were paid by the WPA of the Federal Government. The schools charging ten and fifteen cents per pupil had a more complete lunch, including milk or a fruit juice as a beverage. Some of the foods served in the latter schools were supplied and paid for by the sponsors. This is the usual method as the commodities supplied by the AMA are considered to be supplementary to the foodstuffs furnished by the sponsors of the school lunches. One coloured school served only apples at noon and these cost the pupils nothing. This school had no facilities whatsoever for heating food at noon.

In all of the schools visited the teachers were most enthusiastic concerning the value of the school lunch to the pupils. They stated that hungry and undernourished children do not make the progress in school that is made by well-nourished children.

The better schools visited had a good storage room for the commodities supplied by the AMA.

In most of the schools the principal, or one of the teachers, sold lunch tickets or a weekly lunch card covering the weekly noon lunch. Usually this was supplied to the pupils on Monday and similar tickets or cards were supplied without charge at the same time to children who were unable to buy them. No child, no matter how poor, went without a lunch.

In most of the southern states the school lunch periods in both the primary and secondary schools usually does not exceed one hour and many of the

schools have only forty minutes at noon. Therefore, even in the most populated areas children do not go home for lunch. In fact in most of the cities, children are not permitted to go home for lunch except for very special reasons. In the South, too, there are many consolidated schools with a number of rooms in the rural areas for white children. In such schools space for serving lunches is usually ample. Many of the schools for coloured children, however, have but one or two rooms. It is therefore more difficult to operate school lunches in these small coloured schools. In the coloured schools efforts are being made to see that the pupils are given one hot dish, but in a number of schools only a cold lunch of AMA commodities is served.

WPA School Lunch Projects (1)

Schools which provide a complete lunch, that is one hot main dish - usually of some protein type of food, - muffins, rolls, or bread with butter, dessert and a beverage, may have the assistance of WPA workers in the cooking and serving of the school lunch. Usually there must be at least 30 pupils before WPA help can be obtained.

In March 1942 there were nearly forty thousand schools serving complete school lunches and most of these had the assistance of WPA cooks and other women helpers. Many of these schools conduct a WPA gardening project under which they grow during the summer, and can and preserve during the fall, vegetables and small fruits for the school lunches.

All the WPA workers in school lunch projects are required to have passed complete medical examinations and to be certified by qualified physicians to be free from disease. They are required to have three uniforms and to use a fresh uniform each day. Absolute cleanliness of person and clothing is required, and workers with colds are not allowed on duty in a school lunch unit. The WPA employs supervisors in every district to see that the cooks and other helpers comply with the regulations of the WPA. A comprehensive manual outlining the technique for conducting WPA lunch programmes has been prepared for WPA school lunch workers. The following is quoted from the introduction of this manual:

"The WPA school lunch programme was developed in response to the urge for the establishment of government work projects for women and in response to the demand from local school officials and other interested persons that hungry children be fed. This demand came not only from metropolitan and urban areas but from rural and remote communities, where contrary to general belief, malnutrition has long been a serious problem.

"The philosophy underlying this early programme was simple: Children were hungry; they must be fed. But as the programme expended and it became apparent that satisfying the appetites of hungry children was not an end in itself, new methods and new techniques of project operation were introduced. The problems involved were complex and confused; such issues as how to feed needy children without social stigma and how to reach children suffering from malnutrition though from families able to pay for lunches had to be recognized and solved; such problems as how to train project workers in habits of cleanliness and sanitation and in the preparation and serving of food, with an ever-increasing change in personnel due to legislative action, had to be recognized and solved; such problems as how to secure the maximum community cooperation had to be recognized and solved.

"The objectives of the programme became then, in order of importance, to:

1. Establish useful work projects for the employment of needy persons.

2. Feed needy and malnourished children, without discrimination, well-balanced meals.

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(1) WPA assistance for School Lunch Programmes will be discontinued on April 1, 1943.

3. Secure community cooperation to expand the program at a rate necessary to meet the needs of all children in rural, ruban, and metropolitan areas.

"Both men and women are employed. The men are employed primarily on the gardening aspect of the project, which has now become, along with food preservation, an integral part of the program (It should be noted that many communities request projects which cannot be operated because there is no available WPA labour).

"The correlation of gardening and canning activities with the serving of school lunches has been an obvious solution of the problem of supplying children with adequate vegetables in their diet and at the same time providing year-round employment for the persons on the project. The Surplus Marketing Administration through the allocation of surplus foods has made possible the operation of school lunch projects in many communities which would otherwise not be able to maintain a programme.

"It is to be noted in the expansion of the programme that the philosophy has greatly changed. A large number of agencies and organizations, Federal, state, and local, are now cooperating in the programme; the lunches have become not merely "hot" lunches, which in many instances meant only a bowl of soup and a piece of bread served at noon, but school lunches which are well-balanced, well-cooked, and well-served meals. As the programme grows it is reaching more and more high school students as well as younger children.

"In many places the serving of breakfast to children who came to school hungry because of the inadequacy of their home meals or because of the long distances they must travel to reach school has become a part of the programme. Cod liver oil, and supplementary mid-morning nourishment in the form of milk or fruit are often being provided for extremely malnourished children.

"The most persistent trend appearing at the present time is that which includes the serving of school lunches as a regular part of the education services to children. More and more the public is recognizing that the school is responsible for those factors which affect the physical well being of the child as well as for those which affect his mental development directly. WPA school lunch projects are expanding to include summer feeding programmes for children in playgrounds and in camps for underprivileged and malnourished children."

Some typical menus in schools serving complete lunches are given below:

MONDAY CREAMED MIXED FRESH VEGETABLES Peanut Butter Bacon Sandwich Fruit Salad Milk Beverage	MONDAY TOMATO RAREBIT ON TOAST SQUARES (Any fresh fruit available) Graham Muffin Milk Beverage
TUESDAY HAMBURG-GRAVY over Mashed or Diced Potatoes Jam Sandwich Raw Apple Cabbage and Carrot Salad Milk Beverage	TUESDAY DICED TURNIPS, CARROTS, ONIONS and Potatoes Cooked with Beef-stock Jam Sandwich Fruited Custard Cube of Cheese Milk Beverage
WEDNESDAY BEEF VEGETABLE SOUP Brown Bread & Butter Raisin Rice Custard Milk Beverage	WEDNESDAY HOME-BAKED BEANS Mixed Fruit Cup or a Garden Salad Brown Bread & Butter Fruit or Milk Beverage

THURSDAY HOME-BAKED BEANS Cabbage Salad Spiced Apple Sauce Fruit Beverage	THURSDAY MEAT CASSEROLE Cabbage & Carrot Salad Cookie - Milk Beverage
FRIDAY BAKED MACARONI with TOMATO SAUCE AND Peppers if available from the Garden Spiced Beet and Onion Salad Cheese or Honey Butter Sandwich Any Raw Fruit Available Milk Beverage or Fruit Juice	FRIDAY CREAM OF POTATO SOUP Cheese Sandwich Chopped Apple, Raisin & Grapefruit Salad Milk Beverage

Nutritional Aspects Emphasized

In England, France and other European Countries the school lunch has not been designed to assist farmers in the marketing and consumption of surplus farm products. They have been designed rather, to improve the diets of school children, and particularly children from low-income households whose diets would normally be below the proper nutritional level. In the United States School Lunch Programme there were two objectives: first, assistance to farmers and, second, improvement in the diet of school children. The latter objective has become by far the more important one although, as shown in Table 2 a great quantity and variety of agricultural commodities have been marketed through the School Lunch Programme. Undoubtedly, a large part of this great quantity of farm products would not have been consumed if it had not been for the School Lunch Programme of the AMA.

The author has attempted to gather information as to the effects of the United States School Lunch Programme on school attendance, freedom from illness, and on the weights and heights of children. Unfortunately, little data are available. School teachers, home economists, AMA officials and many other persons directly or indirectly concerned with the Programme who were interviewed by the author, attested to the improvement, mentally and physically, in the pupils in both primary and secondary schools who have had the benefit of regular school lunches during the school year.

Dr. Ada M. Moser reports the results of a noon school lunch in a three-teacher rural elementary school in Pickens County, South Carolina, in the "Journal of Home Economics", Volume 34 - No. I:

"The lunches were well-rounded meals and provided, on the average, half or more of the day's requirement for mineral and vitamins and more than one-third of the calories and protein needed. The lunch was served at noon as had been the custom, and school was dismissed at 2:00 or 2:30.

"In the fall, and again in the spring, the children were weighed and measured and given medical examinations and tests for hemoglobin and for blood levels of vitamin A and vitamin C. Results of these measurements and tests are not yet ready for reporting in detail. However, it was evident that the children receiving this good school lunch during the winter had higher blood levels of vitamin A and vitamin C in the spring than did those in a near-by school where no hot lunch was served. Apparently the children who had the school lunch also made better gains in height."

"The assumption is made here that it is desirable for children to have some type of lunch at school other than box lunches brought from home. It is true that certain districts may not greatly need the school lunch. However, there are many schools through the country where a considerable proportion of the children cannot receive from the home food supply all the health-and-growth-promoting foods they need. And in many communities it is difficult to fit meals into the school-day schedule so that the nutritive needs of the children are adequately met. It is in these schools that the lunch plays an important role.

"Home economists and nutrition committees can bring nearer the day when the school lunch will be not merely a convenience but a 'health meal,' like the famous Oslo breakfast, a focus for teaching the essentials of good nutrition, and a means of forming desirable food habits."

Dr. Agnes Fay Morgan in an article in the "Journal of Home Economis" of December 1942, entitled "How Schools Improve the Nutrition of Pupils" reviews literature on the value of certain foods on the growth of school children, discusses the value of the School Lunch Programme of the AMA, the need of education of parents and teachers in nutrition, and emphasizes that if the objective of a democracy is to wipe out the growth difference in children attributable to economic and social causes, it must be recognized that the quality and quantity of food available to all children must be equalized. The article is so thought-provoking and applicable to a discussion of the School Lunch Programme that much of the article is quoted in Appendix B, pages 60 to 66.

In March, the peak month of operation for the School Lunch Programme, participation totalled .9 million children in 1939, 2.5 million children in 1940, 4.7 million children in 1941, and 6.2 million children in 1942. The volume of food distributed through the Community School Lunch Programme has increased from 5 million pounds in March 1939 to 75 million pounds in March 1942. In other words, the number of children increased 7-fold from March 1939 to March 1942 while the volume of food distributed increased 15-fold. Furthermore, the cost to the AMA of the food distributed to each child increased from about 18 cents for the month of March in the 1938-39 fiscal year to 46 cents in the 1941-42 fiscal year.

The Community School Lunch Programme has received widespread acceptance because of its effectiveness in improving the diets of school children and providing a positive attack on the problem of undernourishment. Especially during the war the AMA has emphasized the necessity and importance of making sure the children have the right kind of food. This has led the AMA to support a substantially stronger Community School Lunch Programme for the year 1943.

In order to show more clearly the progress and effectiveness of the programme, a detailed survey of operations was made in March 1942. By distributing questionnaires to school authorities on a county level, it was possible to obtain data for over 97.5 percent of the 6.2 million children in 93,100 schools participating in the programme in that month. (Table 7). These data include information on the location of schools, the racial composition of the participating children, types of schools included, facilities for the preparation and serving of lunches, and the type of lunches served, the number of free lunches served and other material helpful in appraising and evaluating the programme and in indicating the work yet to be done.

The 6.2 million children participating in March represented more than 22 percent of the total number of children enrolled in schools in the United States in that month. Nearly half of the children and about 40 percent of the schools participating in the programme were in the South where the programme has been most rapidly expanded. Nearly a quarter of the children were in the 12 North-eastern States and the District of Columbia, while the remaining fourth were in the Midwest and the West. Georgia, Texas, South Carolina, Mississippi, New York, Pennsylvania and California, in that order had the largest programmes each with more than 300,000 children participating in the peak month (511,000 in Georgia).

The programme is still concentrated largely in rural areas although many splendid programmes are in operation in metropolitan areas. In March, two-thirds of the children and 83 percent of the schools were in areas classified as rural (2,500 population or less). More of the schools were in rural areas in March 1942 than in March of the preceding year, although the proportion of children was about the same in the two years. Especially in the South are the rural Community School Lunch Programmes important since 79 percent of the children participating in the South reside in rural areas. More than 1.1 million children - 19 percent of the total - were negroes despite the fact that this race constitutes only 11 percent of the total number of children in the United States of school age. In addition, nearly 100,000 children of races

other than white or negro participated in March. Approximately 300,000 children were in schools which planned to operate Summer Feeding Programmes.

The AMA has encouraged improvement of facilities for preparing lunches wherever its foods are used. In March, more than three-fifths of the children participating were served meals which were prepared in regular school kitchens, while 29 percent had meals prepared in the classroom. In some of the large urban centres lunches are prepared in central kitchens with trucks delivering food to outlying schools in the area. Approximately a quarter of a million children were served lunches in March prepared in central kitchens of this type. Nearly 3.3 million children ate their lunches in regular school lunchrooms, about 2.4 million children were served in the classroom while the remaining 300,000 children were served outside of the building or in other ways.

Table 7. School Lunch Survey, March 1942, All Regions

	Number of Schools	Percents	Number of children	Percents
1. Total participation	92,252	100,00	6,011,241	100.0
2. Type of community:				
Urban (population over 2,500)	15,987	17.3	1,986,250	33.0
Rural (population under 2,500)	76,265	82.7	4,024,991	67.0
3. Race:				
White	75,303	81.6	4,771,647	79.4
Negro	15,661	17.0	1,140,784	19.0
Other	1,288	1.4	98,810	1.6
4. Type of school:				
Pre-school or nursery	2,125	2.3	83,064	1.4
Elementary	70,924	76.9	3,459,948	57.6
Junior high schools	1,574	1.7	207,435	3.5
High Schools	3,892	4.2	560,011	9.3
Consolidated	10,889	11.8	1,348,683	22.4
Parochial	2,848	3.1	352,100	5.8
5. Facilities for preparation:				
Central kitchen	1,898	2.0	220,765	3.7
School kitchen	42,229	45.8	3,708,925	61.7
Preparation in classroom	43,063	46.7	1,764,324	29.3
Other	5,062	5.5	317,227	5.3
6. Type of service:				
School lunchroom	35,181	38.1	3,333,629	55.4
Service in classroom	53,643	58.2	2,360,593	39.3
Other	3,428	3.7	317,019	5.3
7. Type of lunch: (only				
Incomplete cold lunch, AMA foods	20,983	22.7	1,258,718	21.0
Complete cold lunch	6,156	6.7	283,373	4.7
Lunch, chiefly one hot dish	25,539	27.7	1,083,473	18.0
Complete hot lunch	39,574	42.9	3,385,677	56.3
Schools serving incomplete lunches planning complete lunch programs next year.	7,193	7.8	367,345	6.1
8. Supplementary feeding	5,944	6.4	507,795	8.4
Summer feeding program contemplated	3,261	3.5	296,914	4.9
9. Children receiving a lunch:				
At cost or cost plus	-	-	821,972	13.7
At less than cost	-	-	1,471,882	24.5
Free	-	-	3,717,387	61.8
10. Food supplying projects:				
Garden programs	9,639	10.4	828,332	13.8
Food preservation programs	4,933	5.3	385,264	6.4
Other	946	1.0	73,696	1.2
11. Type of sponsoring agency:				
Boards of Education	41,263	44.7	2,848,411	47.4
Teachers	26,259	28.5	1,284,558	21.4
P.T.A.'S and Mothers' Clubs	16,447	17.8	1,352,693	22.5
Women's Volunteer Services	1,405	1.5	70,981	1.2
Service Clubs	1,158	1.3	84,067	1.4
Others	5,720	6.2	370,531	6.1
12. Length of operation:				
10, 11, or 12 months	5,755	6.2	517,297	8.6
7, 8, or 9 months	72,197	78.3	4,852,737	80.7
4, 5, or 6 months	12,311	13.3	553,185	9.2
1, 2, or 3 months	1,989	2.2	88,022	1.5

To be most effective in its benefits to the participating children, it is, of course, important that as complete and well-rounded lunches as possible be served. In schools where facilities are available, complete hot or cold lunches, or lunches consisting principally of one hot dish, can be prepared, but where facilities are not available, the programme has been limited to the serving of an incomplete cold lunch usually composed entirely of foods made available by the AMA. More than three-fifths of the children participating in March were served complete lunches, one-fifth received lunches consisting chiefly of one hot dish, while the remaining fifth of the children received incomplete cold lunches. The proportion of children receiving complete lunches or lunches consisting chiefly of one hot dish has increased from about 72 percent of the total in March 1941 to 79 percent of the total in March 1942. It is evident, then, that while progress has been made in securing a complete and well-rounded lunch for participating children, there is still a large number who, because of lack of facilities or because of the inability or unwillingness on the part of local sponsors, are not receiving as substantial an addition to their diets as the AMA would like to secure for them.

Much discussion has arisen regarding the number of children receiving lunches at no cost. Under the liberalized requirements oftentimes all the children in a school are certified for the programme even though some children are not classified as "needy". In such instances these children who can afford it pay something less than cost for their lunch or in some instances cost or cost plus. In March, 3.7 million children, 62 percent of the total, received lunches free, 1.5 million children, 24 percent, paid something less than cost, while the remaining 800,000, 14 percent, paid the cost of their lunch or a little more.

Many schools, especially in the Southern States, operated garden projects in connection with the programme, nearly 10,000 of them having such programmes in March. Nearly 6,000 schools operated canning projects or other food-supplying projects during the past school year.

Boards of Education, teachers' or parent-teachers' associations and mothers' clubs sponsored most of the programmes, and it is chiefly to them that the AMA must look to secure further expansion of the programme. About four-fifths of the children were in schools operating the programme throughout the school year, while an additional 9 percent were in schools operating the programme a month or more beyond the school year. The remaining 11 percent of the children received lunches for six months of the year or less, and it is hoped that where lunches were started in the middle of the school year it will be possible to operate the programme at least throughout the regular school year in the future.

Data relating to sponsors' costs were incomplete owing to the different bookkeeping methods used and to the difficulty of obtaining information on actual expenditures. In the West it was estimated the average contribution of cash or in kind by sponsors amounted to 55 cents per child in March, while the average was 71 cents in the Northeast, indicating that sponsors' contributions were, roughly, equivalent, on the average, to the cost of AMA of the supplementary foods supplied. Scattered state information from the Midwest and South shows sponsor contributions ranging from less than 25 cents to more than $2.00 per child per month. Local sponsor interest is evidenced not only in the institution of Community School Lunch Programmes, but in regular and substantial support in the form of cash and kind. Therefore, the monetary value of the School Lunch Programme is not limited to AMA's contribution, since foods contributed by the Government stimulate an equal or greater contribution by local sponsoring groups.

The Programme in 1943

It is expected that in 1943 the School Lunch Programme will be expanded, in spite of the scarcity of food, to include more schools and more children, and increased allotments will be made of funds provided by Congress for the School Lunch Programme.

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The School Milk Programme

Purposes

The purposes of the School Milk Programme have been (1) to improve the total returns to milk producers by utilizing quantities of milk for fluid consumption which would otherwise be used for the manufacture of butter, cheese, or other dairy products, and (2), to increase the consumption of milk by school children who are unable to obtain sufficient quantities at regular prices.

The first mentioned purpose of the programme was given the greater emphasis when the programmes were first started, but the demand for milk for all types of dairy products has greatly expanded, prices have increased, and what has been normally called "surplus" milk, in areas where the milk is used largely for fluid consumption practically no longer exists.

The second purpose of the programme, viz., the adding to the diet of children of low-income families certain very essential nutrients, is now receiving the major emphasis.

Development of the Programme

A School Milk Programme was first approved by the United States Secretary of Agriculture on May, 28, 1940. This was established in the city of Chicago and was limited to 15 selected elementary schools situated in low-income areas, having a total enrollment of 13,256 children. The programme was established on an experimental basis for the purpose of testing out the feasibility of increasing the consumption of milk by needy children through distribution on school premises. Under the programme, these children were enabled to secure milk each school day at the price of 1 cent per one-half pint.

Distribution was started on June 4 and continued for a three-week period until the close of the school year. During this period a total of 102,226 one-half pints of milk were consumed by the children in attendance at the selected schools. Approximately 54 percent of the children attending these schools purchased milk each day. Some children who did not have the 1 cent to pay for the milk secured free milk through the donation of the purchase price by teachers or outsiders. The consumption of milk in these schools previous to the inauguration of the programme, which was purchased at prevailing prices, ranged from 40 to 90 one-half pints of milk per day as compared with an average of 487 one-half pints under the programme.

The experiment of distributing milk to school children was extended to New York City on October 14, 1940, under a programme approved for the remainder of that calendar year. At first the sale of milk was conducted in only 45 schools; but as acceptable bids were secured for additional schools, the programme was extended. By the end of November, 123 schools or school units had been brought under the programme. Milk was also provided for all children receiving free lunches.

Under the New York programme, results somewhat similar to those under the Chicago programme were secured. Consumption in the participating 123 schools increased to 104,000 one-half pints of milk daily by the end of November, as compared with 18,000 one-half pints before the programme was instituted.

The results secured under the experimental operations in Chicago and New York City definitely showed that the distribution of milk to needy school children for consumption on school premises was a feasible method of increasing the consumption of milk by them and of disposing of surpluses of milk as a means of aiding milk producers. Accordingly, steps were taken to operate the programme in New York City on a continuing basis and to re-establish the programme in Chicago. The distribution of milk under the extended programme in Chicago was started January 20, 1941.

Following the establishment of the programmes in New York City and Chicago on a continuing basis, steps were taken to establish similar programmes in other communities. The interest of local school authorities in these programmes and their desire to make more milk available to needy children at a price within their reach resulted in the completion of the details of the programme and their approval by the Secretary of Agriculture, for seven additional areas within three months. On April 10, 1941, programmes were approved for Omaha, Nebraska, and Ogden, Utah; on April 11, for Birmingham, Alabama; on April 21, for St. Louis, Missouri, and the Greater Boston area; on April 30, for Toledo, Ohio; and on May 12, for the Lowell-Lawrence, Massachusetts, area. Except for Birmingham and Ogden, these programmes are similar to those in New York City and Chicago.

Since May 1941 there has been considerable expansion in the School Milk Programmes. On October 6, 1942, the programmes were in operation in 795 areas with a probable participation of more than one million children. (Table 8.). The estimated annual cost to the Federal Treasury of the programmes in the 795 areas was nearly $3,400,000.

Table 8. Progress of School Milk Programme as of October 6, 1942.

Region	Number of Areas	Number of Schools	Probable Participation (children)	Estimated Total Cost of Programme (dollars)
		Areas with population of 10,000 & under		
Northeast	184	635	73,053	271,404
South	59	335	42,196	127,970
Great Lakes	231	551	102,765	229,491
Midwest	151	427	55,822	118,866
Southwest	37	149	18,769	53,503
Rocky Mountain	10	57	7,226	19,588
Pacific	46	162	29,229	92,884
All Regions	712	2,316	329,060	913,706
		Areas with population of over 10,000		
Northeast	27	1,428	531,476	1,930,730
South	0	0	0	-
Great Lakes	29	437	156,016	401,596
Midwest	23	331	60,555	125,431
Southwest	0	0	0	-
Rocky Mountain	1	18	8,000	21,000
Pacific	3	7	1,540	5,453
All Regions	83	2,221	757,587	1,484,210
		All Areas		
Northeast	211	2,063	604,529	2,202,134
South	53	335	42,196	127,970
Great Lakes	260	988	258,781	631,087
Midwest	174	758	116,377	244,297
Southwest	37	149	18,769	53,503
Rocky Mountain	11	75	15,226	40,588
Pacific	49	169	30,769	98,337
All Regions	795	4,537	1,086,647	3,397,916

Since September 28, notices of designations (survey reports) have been received for 305 areas under 10,000 population. Participation in these programmes is estimated at 112,256 and they will cost the AMA approximately $303,370.

Note - The participation and cost data are preliminary estimates and are subject to revision on basis of actual performance.

Prepared in Economic Analysis Division of Washington Office.

Since October 1942 the number of programmes have increased still further although scarcity of milk in some areas has prevented programmes starting in those areas even though sponsoring agencies were ready to make agreements for a programme with the AMA.

How Programmes are Operated

The Distribution Branch of the AMA, under which the Direct Distribution of commodities, the Food Stamp Plan and the School Lunch Plan are operated, also has charge of the School Milk Programme. Unlike the other distribution programmes under which the AMA makes agreements with State Governments, the agreements for School Milk Programmes are made by the AMA directly with the sponsoring agency which, generally speaking, is an agency, board, or other local authority charged with the responsibility of the operation of the school where the programme is to be undertaken.

There may be, and usually are, co-sponsors for each programme. If such an arrangement is worked out, it, insofar as the AMA is concerned, will be regarded as a private operating agreement between the sponsor and such co-sponsor or co-sponsors, and will not in any way affect the operating agreement between the AMA and the sponsor. It may be advantageous for the sponsor to secure co-sponsors in many instances. These co-sponsors must be limited to non-profit or civic organizations, such as the P.T.A., civic clubs, welfare agencies, and the like. Co-sponsors' contributions may be in the form of money, services, etc.

Negotiations between milk handlers and the sponsoring agency are primarily dependent upon the sponsor. All contracts or agreements entered into for the furnishing of milk to the sponsoring agency are the responsibility of the sponsor and not the AMA. The rate of indemnity to be paid by the AMA to the sponsor is the price paid producers f.o.b. plant in the programme area, for unprocessed milk.

Distributors are required to certify to the butterfat content of the milk delivered to a sponsoring agency. The rate of indemnity by the AMA is equal to the price for milk of such a butterfat content. In small communities where distributors do not know the butterfat content of the milk they handle, they must certify that the milk meets the legal requirements for butterfat and the rate of indemnity is based on the price for such milk.

Distribution of Milk to Children

The sponsor must offer milk to all children in designated schools, and provide the necessary facilities and serve the milk to the children. The sponsor may charge the children not more than 1 cent per half-pint for milk. If the sponsor plans to make a charge for the milk, those children who are unable to pay must be furnished milk free if at all possible. If some children are furnished free milk there must be no distinction whatever between the paying and non-paying children.

There is no limit on the amount of milk that may be distributed to each child each day for consumption on the premises. AMA reimburses the sponsor for all milk consumed by the children on the premises, provided that not more than 1 cent per half-pint is paid by the child.

Chocolate milk, buttermilk, flavoured milk and the like do not fall within the definition of "milk" for the purposes of this programme. Milk for the purposes of this programme can be defined as sweet fluid milk commonly used for drinking purposes in the area.

All milk served under this programme must be consumed on the school premises

Any funds accruing to the sponsoring agency as a result of the price charged to children exceeding the difference between the total price of the milk and the rate of indemnity shall be utilized by the sponsoring agency to,

(a) defray the school's (or sponsor's) cost of the programme, (b) furnish milk free to children unable to pay, or (c) reduce the price to all children for such intervals and to such a point which would result in using up all such funds.

Milk used under this programme may not be utilized in preparing meals or for other cooking purposes.

Health and Sanitary Facilities

It is the responsibility of the sponsoring agency to determine that milk procured and served the children under this programme meets reasonable sanitary standards. In communities where raw milk is served, the AMA suggests that school authorities for their own protection have health officials or city or community doctors make periodic inspections of milk plants and tests of the milk supply for the programme.

In the fall of 1942 the AMA decided that as the supply of milk for areas with populations of more than 10,000 was in most cases not likely to be plentiful, agreements for a School Milk Programme would be made only with schools and child-welfare centres in areas with populations below 10,000.

During the summer of 1942 when schools were not open, the AMA made agreements for milk for children with child-welfare centres conducting non-profit summer feeding programmes.

From an AMA circular describing the School Milk Programmes the following paragraphs have been extracted. They endeavour to show to those who may be interested, the value of the milk programmes to children:

"It has been estimated that the milk produced by more than a million cows would be required to supply the improved farm market that would result if every child drank at least a half-pint of milk every day at school. Today, only a small part of that market is being tapped. Millions of boys and girls are not drinking all the milk they need to build sound teeth and a strong framework for their growing bodies. A surprisingly large number are not drinking any milk - valuable as it is for growth, and as a weapon against one of the most dangerous enemies of democracy, malnutrition. Thus handicapped, children are not able to enjoy the full advantage of educational opportunities provided at community expense. They are not fully armed for citizenship.

"Children look forward to 'milk recess' because it means a time to relax, to talk with one's schoolmates, as well as to drink a cool, refreshing half-pint of milk. Teachers report that the 'milk interlude' gives the children renewed interest in their school work, and that, in time, it shows its effects in better health.

"Children enjoy doing things in groups, and milk drinking is no exception. Sometimes the mother who found it hard to get her children to drink milk at home discovers hearty milk drinkers at her table after the programme starts in school. Occasionally, children who have never tasted milk learn to drink it in the classroom and carry the habit back to the family circle.

"The community thus takes the lead in starting a milk programme in its schools and furnishes the driving force to carry it through successfully. Community and Government share the cost of this democratic, co-operative enterprise in the American tradition; the gains are shared by the entire Nation. Farmers have an immediate market for part of their increased milk production, and more children drink more milk for sound, robust health."

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LOW-COST MILK FOR NEEDY FAMILIES

Families receiving some form of public assistance are eligible to participate in the Low-cost Milk Programme of the AMA in Boston, Mass., and nearby residential areas; Chicago, Ill.; New Orleans, La.; New York City; and St. Louis, Mo., and certain areas in the vicinity. These were the only areas in which the plan was in operation in October 1942.

Under the Low-cost Milk Programme, milk is made available for distribution or sale to eligible needy families at a price averaging around 5 cents per quart. In the areas mentioned above there is a Federal milk marketing agreement in operation under the Agricultural Adjustment Administration, and the Low-cost Milk Programmes are made possible through a provision for a special producer price in the Federal Milk Marketing Order for each of the marketing areas and through a Federal indemnity payment to handlers whose bids for supplying the milk are accepted.

The indemnity payment, plus the price received from sales, reimburses each handler for the milk and the handling and distributing services. The special producer price for milk used in the programme is lower than that established for regular fluid milk sales and higher than the price established by the order for so-called "surplus" milk. Through this arrangement it has been possible to increase the consumption of fluid milk among needy families at the same time that returns to producers were improved for the additional quantities of milk used.

Nearly 26,000 needy families benefited from the Low-cost Milk Programme in Boston in July 1942. Milk is sold to eligible needy persons at 6 cents from distributing stations established by local welfare authorities.

In Chicago about 35,500 families purchased low-cost milk in July 1942 at 5 cents per quart at their homes or at 4 cents per quart at milk stations. The number of families and the prices of milk for other areas as well as for Chicago are shown in Table 9.

The present types of Low-cost Milk Programmes have been in operation in Boston since August 7, 1939; in Chicago since November 13, 1939; in New Orleans since May 15, 1940; in New York City since December 17, 1940; and in St. Louis since March 31, 1941. A Low-cost Milk Programme was in effect in Washington, D.C., from August 12, 1940, until July 1942.

During 1940 a study was made in Washington of the effect of the programme amongst low-income families (U.S. Dept. Agr. circular No.645: "Low-Priced Milk and the Consumption of Dairy Products Among Low-Income Families, Washington, D.S., 1940", by Hazel K. Stiebeling). Some significant information was obtained in the survey of the response of low-income families to the programme. A few of the paragraphs from the summary of this study are presented below.

"The low-priced-milk program in Washington, D.C., resulted in a notable increase in the average quantity of milk consumed by the low-income families, according to data from a group of 624 identical families, each of which cooperated in surveys made before and after the program was started. In the preprogram period (May and June 1940) these families bought an average of 0.72 quarts of fluid milk per person per week; their consumption of milk in various forms - purchased and free - was equivalent to non-fat milk solids to 1.99 quarts of fluid milk per person per week.

"Only a few more than half of these 624 eligible families were participating in the milk program at the time of the second interview (October and November 1940). The 321 participants bought an average of 2.65 quarts of fluid milk per person per week, the 303 nonparticipants, 0.54 quart. Consumption of milk in all forms, including purchased and free products, was equivalent in nonfat milk solids to 3.66 and 1.92 quarts per person per week among participants and nonparticipants, respectively.

"Striking as are the increases in fluid milk purchases of participating families, only about half of the participants bought the maximum quantities allowed under the low-priced-milk program; more than one-fourth bought less than 75 percent of their allowance."

Table No. 9. Low-Cost Milk Programmes in Operation in July 1942[1]

Area	Type of distribution	Price paid by clients or relief agencies	A.M.A. payment	Relief class price f.o.b. city	Fluid Milk price f.o.b. city	Prevailing retail price		Participating relief cases	Relief milk sales in July 1942
						from stores	to homes		
		¢ per quart	¢ per Qt.	$ per Cwt	$ per cwt	¢ per quart	¢ per quart	Number of families	Quarts
Boston Mass.,area	Milk stations	6	3.08	3.16	3.63	14	15	25,903	1,276,407
Chicago, Ill.	(Homes 80% (Milk (stations 20%	5 4	4.0255) 2.4845)	2.50	2.806	13-14	15.5	35,497	1,423,679
New Orleans, La.	Milk stations	5	2.5736	2.56	3.03	13-14	15.5	11,214	261,160
New York City	Retail Stores	5	3.9675	3.00	3.57	12	16.5	52,794	1,895,000
St. Louis, Mo., area	Homes	5	3.576	2.348	2.808	14-15	15	3,756	139,878

(1) A relief milk programme was also in operation in July in the District of Columbis, but was terminated at the end of that month.

Note: The price paid by clients, or relief agencies, plus the Agricultural Marketing Administration payment constitutes the total return received by handlers for milk sold under the programme. Out of this total return the handler must meet the cost of unprocessed milk (relief class price, f.o.b. city) and processing and handling costs.

EFFECT OF THE FOOD DISTRIBUTION PROGRAMMES ON FARM INCOMES

Disposal of surplus agricultural products is an effective way of raising farm income. This may be accomplished in different ways such as by exporting the surplus, diverting the surplus to by-product or secondary uses or by making them available to low-income families. Under ordinary circumstances any of these methods will require some Government assistance. All of these methods may be used at the same time.

Studies made by the Inter-bureau Planning Committee of the United States Department of Agriculture of the food distribution programmes of the United States Federal Government have shown that the benefits to farm income have been equal to the expenditures by the Federal Government on the School Lunch, Food Stamp and Direct Distribution plans. The results of the studies are shown below:

Programme	Federal Expenditures Millions of Dollars	Benefits to Farm Incomes Millions of Dollars
School Lunch	15	16 - 29
Food Stamp	82	65 - 85
Direct Distribution to Families	74	54 - 74

The author has not attempted to undertake any studies similar to those made by this Inter-bureau Planning Committee.

Suggestions for a Post-War Programme of Distribution of Surplus Agricultural Products in Canada

We know that the people of the countries which have been conquered by the Axis are in great need of food. Agriculture in Europe has been deteriorating with the progress of the war as experienced labour has been drawn from the land for the armed forces, as the use of commercial fertilizers and the crop rotations has been neglected, and as live stock, including breeding stock, has been slaughtered. Food in Europe is therefore scarce.

At the cessation of hostilities millions of people in Europe and in parts of Asia will have to be fed. Great Britain's policy with respect to the feeding of Europe after the war was put forward by Winston Churchill in the British House of Commons on August 20, 1940: "Meanwhile we can and we will arrange in advance for the speedy entry of food into any part of the enslaved area, when this part has been wholly cleared of German forces, and has genuinely regained its freedom. We shall do our best to encourage the building up of reserves of food all over the world, so that there will always be held up before the eyes of the peoples of Europe, including - I say it deliberately - the German and Austrian peoples, the certainty that the shattering of the Nazi power will bring to them all immediate food, freedom and peace." The Allied Governments declared at a meeting in London in September, 1941, that it was their common aim to ensure that supplies of food, raw materials and articles of prime necessity should be made available for the post-war needs of the countries liberated from Nazi oppression, and that while each of the Allied governments and authorities would be primarily responsible for making provision for the economic needs of its own peoples, their respective plans should be co-ordinated for the successful achievement of the common aim. This aim of social security abroad no less than at home has been affirmed repeatedly by Mr. Eden as an objective of British foreign policy, and in his speech at Nottingham on July 23, 1941, he pointed out that the first task would be to feed the starving populations. There was also, he said, the problem of enabling devastated, impoverished and economically undeveloped countries to restart their agriculture and industry.

For two, and possibly more, years after the war the demand for Canadian agricultural products is likely to be strong. The immediate feeding of the people of overseas countries will require large quantities of wheat and other cereals, dehydrated potatoes and vegetables, and animal products such as dried eggs and milk, and cheese. Exports of pork to the United Kingdom

are likely to continue large for some time, but as soon as the hog producing countries of continental Europe are again in a position to export hog products they are likely to again obtain a share of the British market.

Just how long the export demand for Canadian agricultural products will continue at the present rate cannot be definitely predicted, but the inability of many European countries to quickly rebuild their factories and industrial plants in which to produce goods to exchange for food will likely cause them to direct considerable attention to food production as agriculture can be restored more rapidly than many other industries. It would appear, however, that excessive quantities of foods will hardly become burdensome in Canada for at least two years following the end of the war.

Since 1939 remarkable increases in the production of certain agricultural products have taken place in Canada in spite of the fact that Canadian farm homes have given from 250,000 to 300,000 men to the Armed Services and war industries, and in spite of the fact that there has been a shortage of farm machinery and a scarcity of certain other items of production. The number of hogs marketed, for example, has been increased from, 3,705,000 in 1939 to 6,228,000 in 1942: cheese production has been increased from 1,254,450 cwt. in 1939 to 2,020,000 cwt in 1942, and egg production has advanced from 221,737,000 dozen in 1939 to 274,495,000 dozen in 1942. These figures give some indication of the tremendous possibilities of food production when the farm manpower and the farm machinery situation return to normal. Below is shown the increases in the exports of certain agricultural products since the war started:

	1939	1942
Pork Products (cwt)	1,878,251	5,080,000
Cheese (cwt)	909,448	1,300,000
Eggs (doz)	1,274,327	35,000,000
Evaporated Milk (cwt)	250,122	500,000
Condensed Milk (cwt)	11,363	144,000

It should not be impossible to maintain, for many years, a substantial part of these exports. Should there be a strong post-war demand for cereals, a sharp drop in hog production in Western Canada would likely take place and in such a case a reduction in hog exports which have shown such a phenomenal increase since the war started would not constitute a hardship to Canadian agriculture.

If demobilized Canadians and workers now in Canadian war-factories can be rapidly transplanted into peacetime activities and their purchasing power for food thereby maintained, large food surpluses should not develop and prices of agricultural products should remain at a level that would be profitable to the farmer for many years, provided of course that the exports of products not required at home can also be maintained.

Another possibility which might develop after the war is the influx into Canada of many persons who can be employed in urban industries. Should this occur the demand for agricultural products in Canada would continue high and any reduction which might occur in the export market be thereby taken up.

As long as the demand for agricultural products at home and abroad continues, a Government programme for the disposal of surplus foodstuffs would not be necessary for the purpose of maintaining farm income. However, if after a period of two, three or more years required for reconstruction and for the filling of the back-log of needs for peacetime goods is reached, and particularly if exports begin to decline, surpluses of food will develop and unless some Government action is taken to remove these surpluses drastic reduction in farm prices may result. However, if that part of the Atlantic Charter which refers to freedom from want is implemented in Canada by providing work and satisfactory living conditions after the war for all Canadian people on a scale of wages that will assure them of a reasonable standard of living and adequate diet, it should be possible to market the production of our farms without any serious price-depressing surplus of agricultural products developing.

Adequate Diet for All

Under pre-war peacetime conditions there were in Canada many urban people who had diets which were far from adequate. This fact has been revealed by dietary surveys. These surveys have shown that while the cause of many poor diets is lack of knowledge of the kinds of food which should be eaten and how to get the most food value for the money spent, the diets of urban people depend very largely upon the amount of money available for the purchase of food.

Deficiencies in Various Food Constituents of City Families with Incomes of $1,500 a Year or Less

In 1938 and 1939-40 the Canadian Council on Nutrition was responsible for or associated with studies of the diets of 278 families which included 1,420 individuals in the cities of Halifax, Quebec, Toronto and Edmonton amongst families with incomes of $1,500 a year or less (none of these families were on relief). In these studies the actual quantities of the different kinds of foods consumed in the homes were weighed and their analyses determined. These diets were compared with the diets as set forth in the Canadian Dietary Standard(1). The study showed that these representative groups in this income class had diets which were deficient in calcium, iron, vitamin 'B" and "C".Many individuals had diets which were also deficient in calories and in proteins. In order that persons in this income class, which probably represents 60 percent of our urban Canadian families (or about 1,000,000 families) may enjoy a degree of health which will make them equal to the tasks which are expected of them and in order that they may have a satisfactory resistance to disease, their diets should, in the main, contain larger amounts of milk (and cheese), eggs, meat, fruits and vegetables, and whole grain cereal products.

In the families studied the wage earner of the family in general had the most adequate diet, the diets of the children were next and the mother of the home had the most deficient diet.

When the diets of the individuals included in the Council on Nutrition studies were compared with the Canadian Dietary Standard it was revealed that 77 percent of the individuals had a diet which showed some deficiency in calories. The average deficiency for these individuals was 23 percent. Approximately 72 percent had diets with some deficiency in protein and the average deficiency was 25 percent. The diet of 80 percent showed some deficiency in calcium. The average deficiency was 43 percent. The diet of 70 percent had an average deficiency of 39 percent in iron. The diet of 40 percent showed an avarage deficiency of 23 percent in fat. Sixty-one percent had a diet showing a deficiency of 40 percent in vitamin "A". Ninety-two percent had a diet showing a deficiency of 51 percent in vitamin "B_1 and 60 percent had a diet with a deficiency of 34 percent in vitamin "C".

It had been roughly estimated that of these urban families only 40 percent were adequately fed, 40 percent were on the border-line and 20 percent were seriously undernourished.

These Canadian Council on Nutrition studies were made at a time when there were many urban families on relatively low incomes, and while under wartime conditions there is practically no unemployment there are, nevertheless, many families still on low incomes, which situation will likely continue during peacetime even if the maximum employment still prevails. Low incomes limit the quantities of protective foods that can be purchased which are

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(1) Since the study referred to was made the Canadian Council on Nutrition decided, in the interests of uniformity with United States standards, to replace the Canadian Dietary Standard with the Recommendations for Daily Allowances of the Committee on Food and Nutrition of the National Research Council of the United States, but the differences in the two standards are such that had the standard which is now accepted for calculating nutrition requirements been used instead of the Canadian Dietary Standard the results of the study would not have been appreciably different.

necessary if the family is to have the buoyant health which should be possible for every Canadian. In this country which has virtually unlimited possibilities for food production, surely it is a national disgrace that anyone should lack the essentials of an adequate diet. If in the post-war world all nations are to have a share in the abundance of the world so that future wars may be avoided, surely the abundance which we possess in Canada can be so distributed that there will no longer be any hungry or undernourished people within our boundaries.

Studies made by the Economics Division of the Department of Agriculture have also revealed the close relationship between household income of urban families and the consumption of the so-called protective foods, such as milk, meats, eggs, cheese, fruits and vegetables.

Milk In a study of the consumption of milk in 3,207 families (of which 2,600 were in cities) in the Province of Quebec, Ontario and Alberta it is shown that low-income families had a much smaller average consumption of milk than families with high incomes (Table 10).

Table - Daily Per Capita Consumption of Milk as Related to Family Income, 3,207 Rural and Urban Families(1) in the Provinces of Quebec, Ontario, and Alberta, 1935.

Family income	Number of Families	Number of persons	Per capita consumption per day reported by housewives
			pints
On relief	189	921	0.54
Under $1,000	1,263	5,868	0.69
$1,000 - $2,000	1,060	4,978	0.76
$2,000 - $4,000	544	2,486	0.81
$4,000 - and over	151	826	0.95
Total or average	3,207	15,079	0.74(2)

(1) 2,600 were in cities.

(2) When adjusted for overestimates by housewives of 10 per cent this figure would be approximately 0.67 of a pint.

The consumption per person varied from 0.54 of a pint for families on relief to 0.95 of a pint for families with incomes of $4,000 and over.

Income has a decided effect on the milk drinking habits of children. Because of the importance of milk in the diet of children a special effort was made in the surveys conducted by the Economics Division to learn the amount of milk used as a beverage by boys and girls of different ages in Canadian cities. The figures were compiled from statements made during personel interviews in 3,684 households in Quebec, Oshawa, Calgary and Vancouver. The facts are presented later on pages 48 to 50.

Adults in high income families used more milk as a beverage than those in low income families. In the 3,207 homes in urban and rural areas of the Provinces of Quebec, Ontario and Alberta the range in percentage of adults drinking milk was from 21 percent for those in households with an income of less than $1,000 a year to 32 percent in households with incomes of $4,000 and over.

Meat A few years ago 2,060 homes in the cities of Saint John, Montreal and Vancouver were visited and information on the consumption of meat of various kinds was obtained. In the families on relief only 81 pounds of meat yearly were consumed per person. In families with incomes of $1,000 or less per year the average consumption of meat was 114 pounds. The average consumption increased steadily until in the households with incomes of $4,000 or more each individual ate an average of 160 pounds annually.

Not only did the higher income households use more meat but the study showed that the people in these households ate higher quality cuts than did those in the lower income classes.

Fruits and Vegetables Studies made by the Economics Division on the marketing of fruits and vegetables by retail stores in different income areas in a number of cities in Eastern Canada have indicated that the small sales were made in the stores located in the lower income areas of the cities. Some of the operators of such stores expressed the opinion that they would be glad if they did not have to handle any fruits and vegetables. The highest sales of fruits and vegetables were made in the higher income areas of these cities.

Purchases of apples in general increased as the income per person increased, as did purchases of oranges, grapefruit and bananas. These facts were revealed in a study made in 1941 by the Economics Division of fruit purchases by urban families in Nova Scotia. The higher income group which included professional and business executives purchased an average of 67 pounds of apples per capita and 57 pounds of citrus fruit and bananas during the seven months from September to March inclusive. This group included 138 households. The survey covered 368 families in the medium salaried range group. Heads of households in this classification were mainly clerical workers and skilled labourers. This group consumed 52 pounds of apples and 44 pounds of citrus fruit and bananas. Among the lower income group of wage earners which numbered 108 families, apples consumption averaged 47 pounds per capita and citrus fruit and bananas, 35 pounds. In the high and medium income groups, apples made up 54 percent of the combined weight of fruits purchased while in the lowest income group, apples were 57 percent by weight of the fruit consumed. The size of income appears to have more influence on the quantity of fruit consumed than on the choice of fruit.

Cheese Information obtained from 2,602 representative city households in Quebec, Oshawa and Calgary in 1935 indicated that in general there was some relationship between household income and total consumption of cheese of all kinds up to a household income of $4,000 at which point a decline in consumption occurred.

Annual consumption per person of all kinds of cheese was 5.9 pounds in families on relief, 6.5 pounds for families with annual incomes of less than $1,000, 6.9 pounds in families with incomes of $1,000 to $2,000 and 8.0 pounds in families with incomes of $2,000 to $4,000. In Oshawa many families on relief and many of those with incomes of less than $1,000 used a large amount of homemade cottage cheese. This fact had quite an influence in raising the average for the total consumption of cheese in these family income groups.

Eggs In conjunction with studies of meat, milk and cheese consumption, information was obtained on the consumption of eggs for 4,662 Canadian city households in the cities of St. John, Quebec, Montreal, Oshawa, Calgary and Vancouver. When the households which were interviewed in these various cities were divided according to household income and the consumption of eggs (in all forms) in each group calculated, some relationship between income and egg consumption was revealed Table 11. The average annual consumption per person was 13 dozens in families on relief, 19 dozens in families with incomes of less than $1,000 a year, 21 dozens in families with incomes of $1,000 to $2,000 a year and 22 to 23 dozens in families with incomes above $2,000 a year. The average for all incomes was 20 dozens per person per year.

The influence of the income of the household on the consumption of various foods was also studied in a survey made by the Dominion Bureau of Statistics in 1937-38 on the expenditures of wage-earner families in Canada. The results of this study have shown that there was a direct relationship between the income of the family and the purchases of milk, meat, eggs and certain kinds

of fruits and vegetables.[1]

Table 11 - Annual Consumption Per Person of Eggs by Household Income Groups in Saint John, Quebec City, Montreal, Oshawa, Calgary, Vancouver, 1935-36.

Household income	Number of households	Average number in household	Consumption per person
			dozen
Relief	367	4.9	13
Less than $1,000	1,594	4.3	19
$1,000 - $1,999	1,615	4.5	21
$2,000 - $3,999	870	4.5	23
$4,000 or more	214	5.4	22
Unstated	2	-	-
Total or average	4,662	4.5	20

People in homes which enjoy higher incomes eat larger amounts of protein foods of all kinds (Table 12). On the average people who ate the largest quantity of eggs also ate the largest quantities of meat, fish and cheese. This would indicate that if it were possible to supply the lower income households, who need the larger quantities of protein foods, with more of these classes of foods the additional quantities would not likely be substituted for the protein foods they are now buying.

Table 12. - Annual Consumption Per Person of Eggs, Meat, Fish and Cheese According to Consumption Per Person of Eggs in Each Household, in Certain Areas of Canada, 1935.

Consumption per person of eggs in the household	Number of households	Average number in household	Consumption per person			
			eggs	Meat	Fish	Cheese
			doz.	lbs.	lbs.	lbs.
0 - 9	396	6.4	5	66	6	4
10 - 19	914	5.4	15	82	9	6
20 - 29	851	4.5	24	94	11	7
30 - 39	552	3.9	34	101	13	8
40 - 49	247	3.2	46	107	14	10
50 or more	152	3.4	64	118	13	10
Total or average	3,112	4.7	222	88	10	7

The expenditures for food at progressive levels of family income for 1,135 English speaking families of Canadian wage earners was 8.9 cents per person per meal. Those with family incomes of $400 to $800 a year spent, on the average, only 5.8 cents per person per meal and those with incomes of $800 to $1,200 a year spent only 7.9 cents per person per meal. The families with incomes of $2,000 or more spent 10.6 cents per person per meal.

Unfortunately we have practically no information on the adequacy of the diets of village and farm families in Canada. The Economics Division of the Department of Agriculture in December 1942 started a study of rural diets in one County of Ontario but the results are not yet all compiled and when they are available they will represent only one small part of the large rural population of Canada.

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(1) "Family Income and Expenditure in Canada, 1937-38," (A study of urban wage-earner families.)

If all Canadian families are to obtain a diet which is nutritionally adequate the peacetime income of Canadians will have to be increased or their incomes will have to be supplemented by giving them additional quantities of food.

In Canada there are a substantial number of people who must continually receive public assistance. In this group are persons who are aged, blind and those who receive mother's allowances. There are, in addition, those people receiving direct relief assistance largely because they are unemployable. The approximate numbers of each of these groups at the present time are as follows:

Category	Number of Individuals
Old Age Pensioners	190,000
Blind Persons	6,000
Benefiting from Mother's Allowances	76,000 (53,000 children)
Direct Relief Recipients (March 1941)	325,000
Total	597,000

Seventy-five percent of the amount paid in pensions to the aged and blind is contributed by the Dominion Government and twenty-five percent by the Provincial Governments. Pensions range from about $11.50 to $20.00 per month per person. Mother's allowances come largely from provincial funds, except in Alberta and Quebec where the municipalities provide twenty-five and five percent respectively.

If surpluses of agricultural products develop this large group of about 600,000 Canadians now receiving public assistance, a considerable portion of whom are children, should be given assistance in the form of food because with the current scale of allowances it is quite possible many of them are not able to obtain a diet which is nutritionally adequate.

Another group which should receive consideration if free distribution of food is to be undertaken is the inmates of benevolent and charitable institutions. There are about 55,000 persons in these institutions and about 30,000 of these are children.

What Family Distribution Plan Would be Most Suitable for Canada?

As pointed out above, it is extremely difficult to say whether or not a plan to distribute food to needy Canadian families will be necessary or desirable under post-war conditions. So much depends on the rapidity with which men and women can be absorbed into peacetime occupations, the time that will be required for industry to fill accumulated needs for peacetime goods, the attitude and policies of other countries towards production of food and importation of food products from Canada, Canadian plans for post-war social security and employment for all employable persons, our post-war immigration policy, our public works programmes, the monetary and tariff policies of the countries of the world, and the extent to which international trading will be revived.

Should surplus foodstuffs develop because of serious decline in exports to the extent that farm prices are seriously depressed, and should general unemployment again occur and wages fall to a level that Canadian families are unable to purchase sufficient food to insure an adequate diet, some plan, such as the Food Stamp Plan operated by the Dominion Government, offers a practical means of improving farm income and providing food for the needy.

It has already been pointed out that studies of the results of the Food Stamp Plan in the United States indicate that farm income has benefited greatly, if not to the full extent of the expenditures of the Federal Government on this plan. There is considerable interest at the present time in Canada on the part of producers for floor prices under agricultural products. The Food

Stamp Plan has greatly helped to put a floor under the prices of many kinds of agricultural products which were in surplus supply in the United States.

It has also been pointed out above that low-income consumers have been able to obtain in the United States vast quantities of additional foodstuffs which have made an outstanding contribution to family diets.

The advantages of the Food Stamp Plan over Direct Distribution to eligible families under Canadian conditions would be: (1) Under the Food Stamp Plan there is much greater assurance that the foods which are distributed to eligible families are a supplement to rather than a substitute for the foods which are normally purchased by such families. (2) The food trade of Canada has the necessary facilities to handle foods which would be distributed to eligible families. (3) To handle surplus commodities direct to needy families without any wastage or loss would require a nation-wide system of government warehouses, many of which would probably have to be erected. The cost of constructing such warehouses would be very considerable and when conditions of supply and demand for food changed, these warehouses would probably not be required for any other purpose.

If government distribution of food commodities becomes desirable and a food stamp plan is established the plan should be on a national basis and should include not only families on relief because of unemployment but should also include those who are receiving public assistance because they are aged, blind or eligible for Mother's Allowances, and also families of which the wage-earner is employed on a low-wage scale (less than $1,000 a year) and who are therefore unable to purchase the food which is needed for an adequate diet.

Estimated Cost of a Food Stamp Plan in Canada.

It is difficult to estimate what the cost to the Dominion Government of distribution of food through a food stamp plan would be for any post-war year as so much depends on the number of persons who might be unemployed and, therefore, eligible to participate in the plan. Moreover, it is not possible to know at this time how many employed families would be eligible to obtain free commodities if the plan included families with incomes below $1,000 a year. In December 1941 it was estimated by the United States Department of Agriculture that it would cost the Federal Government in the United States between $400,000,000 and $450,000,000 annually to provide commodities under the Food Stamp Plan to families of unemployed persons, including those receiving aid because they were blind, aged or included under aid to dependent children, as well as to families with incomes below $1,000 a year. Judging from that estimate the cost to the Dominion Government for a food stamp plan in Canada under conditions such as prevailed in 1941 would be somewhere in the neighbourhood of $30,000,000 to $40,000,000 annually.

In this connection it is interesting to note that the disbursements of the Dominion Government under relief legislation for the ten years from 1931 to 1940 inclusive amounted to about $394,000,000 of which about $218,000,000 were for grants-in-aid and material aid (food, fuel, clothing and shelter). If 50 percent of the grants-in-aid and material aid represent food, the expenditures for food would therefore be $109,000,000. The estimated total expenditure under relief legislation, including Dominion, provincial and municipal, in the same ten-year period was $972,216,000, of which $614,524,000 was for material aid (direct relief). Food possibly represented about $300,000,000.

There is one outstanding difference between the relief methods in Canada and the United States. In the United States almost all of the relief assistance is in cash while in Canada, except for Montreal and British Columbia, relief assistance in the past has been in the form of vouchers. While it is possible to provide families on relief under a voucher system with food stamps, the plan can be operated more satisfactorily if relief assistance is in the form of cash. This is not the place to enter into a discussion of cash versus voucher relief, but experience in the United States definitely indicates that cash relief is more efficient than relief in the form of vouchers

and what is just as or even more important, the morale of the recipients is much higher under cash relief.

One of the major objections to the Food Stamp Plan as operated in the United States from the standpoint of the producer of agricultural products is that when a specific commodity is placed amongst those which are to be distributed free, there is no assurance that that commodity will move into consumption in any particular volume or at any particular rate. With certain changes in the operation of the plan that deficiency in the plan can be improved.

As we in Canada do not have any complete knowledge of the food purchase pattern of low-income urban and rural families in different regions of the Dominion, it would be desirable before the plan is put into operation to have studies made to determine the amounts spent for food by low-income families, the kinds of foods purchased, the adequacy of the diets of families who would be eligible to participate in the plan in cities, town, villages and country areas, so that the details of operation could be worked out to accomplish as nearly as possible the objectives of the plan.

The author has not attempted to study the different methods employed by various provinces, counties and municipalities in providing relief assistance to unemployed families. The adaptation of the Food Stamp Plan to the methods used by provincial and local agencies for providing public assistance to needy families would also have to be considered and adjustments made wherever necessary.

In the operation of the Food Stamp Plan it would appear that agreements should be made with provincial governments and that the sale and distribution of stamps should be under the direction of the welfare agencies of provincial and local governments. If it were decided that this procedure should be followed, officers of provincial governments would have to be approached and their co-operation obtained before the plan could be put into operation in any particular province.

Direct Distribution of Commodities to Families in Canada

It is not recommended that an organized plan for direct distribution of food commodities to needy families should be undertaken in Canada. Occasionally, however, exceptionally large surpluses of certain commodities might occur in some region of Canada during post-war years which could not be taken care of by a school lunch or a food stamp plan if such were in operation. On these rare occasions the direct distribution of food to low-income families and charitable institutions where they would be consumed would be desirable rather than let good food go to waste.

School Lunch for Canadian Children

Mr. Claude R. Wickard, United States Secretary of Agriculture, in a published statement said recently "In the United States we think it is a public duty to provide education for our children and we spend a lot of money doing it. Isn't it just as much a public duty - I think it is even more - to see that they have sound and healthy bodies?"

Dr. Thomas Parran, Jr., Surgeon-General of the United States Public Health Service, expressed a somewhat similar thought in these words: "In our educational system we are wasting much money trying to teach children with half-starved bodies and minds. We shall spend tomorrow on the care of their sickness many times over what we save today on food which would prevent it."

The opinion is growing in the United States, in the United Kingdom and in many other countries, that the school system should provide for the development of the child's body as well as for the development of his mind. Even in the face of growing shortages of food in the United States Mr. Wickard in a recent release from the Department of Agriculture stated: "With the war has come increasing recognition of the importance of making sure that the children of this country receive the proper kinds and quantities of food. If our children are to take their part in the peace that is to follow, it is necessary for parents, educators, welfare agencies - in fact all of us - to

take whatever steps are necessary to provide children with the food they need.

In England, Scotland and Wales where almost all foods are now rationed because the supply does not nearly meet the demand, more than 900,000 school children were served with school dinners in August 1942. A considerable proportion of these meals were free or were provided for a small charge.

It was pointed out above that throughout the world where school feeding of necessitous and undernourished children has been provided, the object has been to help in building up strong, healthy children rather than assisting agricultural producers. In the early stages of the food distribution plans in the United States, relief for the farmer was the main objective, but today, insofar as the School Lunch Plan of the United States Department of Agriculture is concerned, the objective is to improve the diets of children who are not receiving sufficient nourishing food.

The future citizens of Canada are the girls and boys who are now in school. We are well aware that there are many who, largely because of inadequate family incomes and to some extent because of ignorance, are not obtaining an adequate diet. The provision of a school lunch in the areas where such children are attending school would provide some of the food substances which are lacking in their diets. Therefore, in the national interest, even if surpluses of food do not develop, serious consideration should be given to the establishment of a nation-wide school lunch programme for Canada as soon as food shortages no longer prevail.

Number of School Children and Number of Schools

According to figures obtained from the Dominion Bureau of Statistics there are in Canada approximately 1,800,000 school children in elementary publicly-controlled schools, about half of which are in rural schools and half in urban schools. Urban schools are those in incorporated villages, towns and cities. There are also about 350,000 children in secondary schools, about 15% of whom are in rural schools and 85% in urban schools.

Also based on figures from the Dominion Bureau of Statistics, it is estimated that there are in Canada about 22,000 rural one-roomed schools and 3,700 rural schools with more than one room. There are also about 7,500 city, town and village schools, all of which probably have more than one room.

In addition to the children in publicly-controlled schools, there are a considerable number attending parochial schools, particularly in the Province of Quebec, but it has not been possible to learn how many there are of such children and they are not included in the figures given above.

Kinds of School Lunches

No data have been gathered on the extent to which school lunches are now being served in Canadian schools. Enquiries made by the author indicate that some country schools have served a hot dish during the winter but it appears that in most urban and rural schools children who cannot go home for lunch bring their own cold lunches to school.

The ideal school lunch is, of course, a complete lunch which consists of a main hot dish and some protein food with some vegetables, a dessert and beverage. The beverage may consist of tomato or citrus fruit juice in schools where school milk is provided in addition, or the beverage could be milk, with fruit juice before the main dish. In the United States complete lunches of this type are provided, in most cases, by the schools which have facilities for their preparation and which have cooks paid from Federal Government funds (WPA women workers). Moreover, these complete lunches are usually served in schools with two, or in most cases, more than two rooms.

It would be quite difficult, if not in most cases impossible, to operate complete hot school lunch programme without help beyond what the usual teaching staff could give. If cooks and helpers could be provided and if part of all of the food commodities required for a complete hot school lunch were

provided without charge, a considerable proportion of the estimated 11,200 rural and urban schools with two or more rooms would probably be prepared to operate a lunch programme.

The schools located in areas where families belonging to the lower income groups live, would probably be most interested in school lunches and it is in these schools that are found the children who are in greatest need of such a lunch. It is impossible to tell at this time in how many schools a complete hot lunch for the pupils could be provided, but if we estimate that 50% of the 11,200 schools (possibly with 850,000 children) would do so and it required one cook and one helper, on the average, to each school, the total women which would be required would be 10,000 to 12,000 in number.

Should a school lunch programme be included amongst the Dominion's post-war projects consideration should be given to the employment of women to assist in the operation of the lunch programme.

The serving of a complete hot lunch in one-roomed rural schools would probably be impossible in almost all cases. However, all of these schools have a stove of some sort to heat the room which could be used for the preparation of at least one hot dish of soup or some other food which the rural children could, with benefit to themselves, consume with the food they bring from home. In such schools the teacher would in most cases have to be responsible for the preparation of the hot dish. In some cases arrangements might be made with a farmer's wife or daughter located close to the school to prepare the hot dish of food.

While hot meals or part meals are desirable it should be remembered that the well known "Oslo" breakfast which is considered so nutritious is served cold. It consists of: "Milk, brown bread (as much as desired, spread thickly with butter). (Part of the bread might be toasted in order to provide some hard food), cheese, enough mixed salad of raw vegetables and fruits to provide a good helping for each child, and apples, oranges or portions of raw carrot if not included in the salad. The food for this meal would often, particularly in cities and towns, be more expensive than that for an ordinary hot school dinner. It must, however, be remembered that if a meal of this type is served every day there would be savings in other directions, i.e., equipment, fuel and labour."

The Oslo breakfast has a high dietetic value.

A cold lunch containing foods similar to the Oslo breakfast would be nutritious and could be used instead of, or as a supplement to, the food which the rural children would bring from home.

Mention was made above of a study now under way by the Economics Division of the Dominion Department of Agriculture (under the general supervision of the author). Only preliminary figures, subject to correction, are as yet available from this study on the adequacy of the daily diets of 46 school children in Stormont County, Ontario, for one week in December 1942. These figures show that while, on the average, the daily intake of calories, proteins, iron and vitamin "A" was adequate, the intake of vitamin "C" was only 38 percent of the daily requirements, vitamin "B" (thiamin) only 71 percent, and calcium and b_2 (riboflavin) only 80 percent of the recognized need. These figures for such a small number of children cannot, of course, be considered in any way as representative of the diet of rural children in Ontario or in any province of Canada. It is hoped that it will be possible to extend this study of rural diets to other areas of Ontario and to representative areas in the other provinces of Canada.

"Growth results from good nutrition are even more startling when dealing with children, especially under-privileged children. In the recent K-Club experiment in Toronto, growing boys aged 9-12 were fed a special noon lunch. They gained on the average three pounds in three months, against a normal gain for healthy children of about 1½ pounds. This shows both the efficacy of a good lunch, and also the fact that they probably needed it. A significant feature of these lunches was that they were designed to give so

much of the important protective minerals and vitamins that adequacy for the day was assured regardless of the other meals eaten. It was also noteworthy that the boys learned to like new foods and carried ideas back to their homes.

Estimated Cost of a School Lunch Plan in Canada

It has been pointed out above that there are about 22,000 one-roomed rural schools. If we estimate that on an average there are fifteen pupils in each school, the total number of pupils would be 300,000. If we estimate that half of these schools would undertake to furnish either one hot dish at noon or cold lunch commodities, it would be necessary for the Dominion Government to provide foodstuffs to 11,000 schools or 150,000 children.

If we add together the children in half the rural one-roomed schools and half the children in all other rural or urban schools and say that this number would constitute the probable number of children which might participate in a school lunch plan, we would have a little more than 1,000,000 children. Again, based on experience in the United States, the annual cost to the Dominion Government for commodities for such a programme would likely be less than $10,000,000. If women cooks and helpers were employed as a public works project of the Dominion Government where facilities are such that a complete hot lunch could be served, the additional cost for a school lunch programme would be increased by four or five million dollars annually. In wartime when we are accustomed to hearing of government expenditures in hundreds of millions and even in billions, the cost of a school lunch programme seems like a very small sum, but the favourable results which should accrue to the nation would be immeasurable.

It is, of course, quite obvious that the figures for the children who might participate and the number of schools which might adopt a school lunch programme are but estimates which might prove far from accurate under actual conditions.

It would appear to be desirable, should a post-war school lunch programme be inaugurated by the Dominion Government, that an agreement should first be entered into between the Dominion and Provincial Governments as the Provinces are responsible for education. Each individual school programme should be sponsored by some local agency, preferably the school board. Should a school board not wish to undertake the work, an organization such as the Parent-Teachers' Association, a service club or some other agency might act as the sponsor.

It would also seem desirable that the sponsoring agency should be prepared to furnish part of the food required except where most or all of the pupils are unable financially to pay for their lunches. In the other schools where the pupils can pay for their lunches the funds collected could be used by the sponsoring agency to pay for the commodities that are purchased. The schools should, of course, provide all of the facilities for preparing and serving the school lunch.

In the United States the distribution of commodities purchased by the Federal Government for schools is through state and local warehouses. In Canada where such warehouses are not available, arrangements could be made with wholesalers of food products to furnish the schools at wholesale prices with the required commodities. The sponsors would be kept informed of the commodities which would be available to them free by the Dominion Government and would have the authority to requisition these commodities from local wholesalers. In some cases where local warehouses are not in close proximity to the schools, local farmers or farmers' co-operative associations might be the agency through which school lunch commodities could be obtained.

Before a nation-wide school lunch programme is put into operation a comprehensive survey should be made of the extent to which urban and rural schools now provide a noon meal to children who cannot be home for lunch, of the interest of provincial Departments of Education and Welfare in such a plan,

(1) Pott, L.B. Extract from "Canadian Public Health Journal", Dec. 1942 pp. 567-8.

of the number of schools which might participate, of the facilities available in the schools for cooking and serving lunches and for storing commodities, of the assistance that might be required for cooking and serving the meals, and other essential data which would be necessary to determine the need and the value of a nation-wide school lunch programme and to indicate the best procedure to be followed in different parts of Canada and in different types of schools.

Milk for Canadian School Children

A few years ago the author of this report endeavoured to obtain information by mail from medical health officers of Canadian cities on the extent to which milk is provided to pupils in city schools. Replies were not received from all of the cities and only a few of those who did reply gave complete information on the subject. In the main, it was stated by the medical health officers that only a relatively small proportion of the children in city schools who are in most need of milk can obtain it. In most cases the children who can buy milk are provided with milk but those who cannot buy it must go without. In most cities, service organizations such as the Rotary, Kiwanis, Lions and Kinsmen, undertake a campaign to raise funds to provide free milk to needy children for part or all the school year.

Table 13. Relation Between Family Income and Non-consumption of Milk as a Beverage by 5,047 Children of Various Age Groups in the Cities of Oshawa, Quebec, Calgary, and Vancouver, 1935 (1)

Family income	Total children	Percentage of children not drinking milk								
		Boys			Total for boys	Girls			Total for girls	Total for all children
		Under 6 years	6-12 years	13-16 years		Under 6 years	6-12 years	13-16 years		
		%	%	%	%	%	%	%	%	%
City of Oshawa										
On relief	72	20	15	33	21	8	23	13	15	18
Under $1,000	458	17	27	47	27	11	31	44	27	27
$1,000-$2,000	397	12	25	24	19	5	21	30	17	18
$2,000-$4,000 (2)	100	11	14	17	14	6	35	11	20	16
Total	1,027	14	23	34	22	7	26	34	21	21
Quebec City										
On relief	142	22	42	91	41	32	50	69	44	43
Under $1,000	631	15	38	48	31	17	44	52	34	32
$1,000-$2,000	611	8	23	20	16	10	28	34	24	20
$2,000-$4,000	280	2	3	23	6	,6	9	40	14	9
$4,000 &over	151	10	6	5	7	7	10	15	11	8
Total	1,815	11	24	33	20	15	29	41	26	23
City of Calgary										
On relief	125	19	38	42	32	36	34	18	30	31
Under $1,000	273	14	27	42	19	12	27	61	31	24
$1,000-$2,000	393	3	8	25	9	4	13	32	17	12
$2,000-$4,000 (3)	229	6	8	20	10	0	11	19	10	10
Total	1,020	8	18	30	14	9	18	33	20	16
City of Vancouver										
On relief	127	14	18	38	19	4	12	56	16	17
Under $1,000	453	6	24	22	17	7	29	46	26	22
$1,000-$2,000	464	0	6	14	6	3	6	25	9	8
$2,000-$3,000	104	13	17	22	18	0	5	25	11	14
$3,000-$4,000 (4)	37	0	0	0	0	0	0	11	5	3
Total	1,185	5	15	18	13	5	15	35	17	15

(1) From Publication 608, Dominion Department of Agriculture, Ottawa.
(2) In the income group, $4,000 and over, there were 30 children all consuming mil
(3) In the income group, $4,000 and over, there were 47 children all consuming mil
(4) In the income group, $4,000 and over, there were 16 children all consuming mil

This is a most commendable endeavour but the milk purchased from these campaign funds do not as a rule provide for all the children who should have additional milk at school. The opinion is growing in England, in the United States and in Canada that every undernourished child who is financially unable to purchase it should be provided with milk at school without cost, and that all other school children in primary and secondary schools should be able to obtain milk at school at a low price.

Information obtained by the Economics Division of the Department of Agriculture from 3,684 households in the cities of Calgary, Oshawa, Quebec and Vancouver in 1936, throws some light on the consumption of milk by children. From these studies it was shown that 20% of the children (16 years and under) in homes representing all income groups in Oshawa and Quebec City drank no milk (Table 13); in Calgary 16% and in Vancouver 14% did not use milk as a beverage.

With few exceptions the proportion of children not drinking milk varied with age and family income. In all cities the larger the family income the smaller the proportion of children not using milk as a beverage. The younger the children the larger the proportion drinking milk. The larger the family the smaller the per capita consumption of milk.

It should be noted particularly that many teen-age children in cities did not drink milk. Nutritionists point out that teen-age children require more milk than younger children except those under one year of age. Approximately one-third of the children in the age group of 13 to 16 years on the average drank no milk. In low-income families having less than $1,000 a year from 40 to 60 percent in this age group drank no milk. Even amongst the high family income groups many of the children between 13 and 16 years of age drank no milk.

In Calgary and Quebec City a smaller proportion of the children in the families on relief drank milk than did those in other family income groups. In the City of Quebec, 22 percent of the boys and 32 percent of the girls under 6 years of age in relief families who were interviewed drank no milk, and the proportion not drinking milk in relief families was higher where the children were older.

In the main there was little difference between the proportion of boys and girls not drinking milk but in three of the four cities mentioned there was a slightly larger percentage of girls than of boys not using milk as a beverage.

Not only did a smaller percentage of the children in the low-income families drink milk but the amount drunk by the children who drank milk was less in the lower income than in the higher income households. This is shown by the study of milk consumption in Vancouver (Table 14). The average consumption of milk by children under six years of age ranged from about one pint per child per day in the families on relief to two pints per child per day in families with per capita incomes of $900 or more. The range for children of six to twelve years of age was from 0.85 of a pint in relief families to 1.50 pints in families in the highest income group. For children from 13 to 16 years of age the range was from 0.76 of a pint to 1.83 pints daily.

Table 14. - Average Daily Consumption of Milk by Children of Different Ages Drinking Milk in 1,082 Households in Various Income Groups, Vancouver, B.C. 1936.

Per capita income	Children under 6 years of age	Children 6-12 years of age	Children 13-16 years of age
	pints	pints	pints
Relief	1.04	0.85	0.76
Less than $300	1.09	0.87	0.90
$300 - $599	1.29	1.18	1.11
$600 - $899	1.38	1.35	1.12
$900 or more	2.00	1.50	1.83
Average	1.16	0.98	1.00

It should not be necessary to emphasize here the value of milk in the diets of children. The vital importance of milk, particularly to those who are still growing, is widely accepted.

In the United States the Federal Government School Milk Programme under which school children may obtain half a pint of milk at school for one cent is expanding rapidly over the country. In November 1942 about [illegible] million children were purchasing milk at this rate in the United States schools.

A report from the British Ministry of Food dated December 16, 1942, states that all schools in England, Wales and Scotland now provide their pupils with milk, either free or at cheap rates, under the Milk-in-Schools Scheme of the British Ministry of Food.

This Scheme, which was started by the Education Departments in 1934, provides one-third pint daily for each child at the cost of ½d. (i.e., about a third of the present ordinary retail price). A number of schools provide two-thirds pint daily, while Local Education Authorities are allowed to supply up to 1 pint per day free to necessitous children. The Board of Education, since October 1941, meet the whole cost of free milk for necessitous children and of handling milk in the schools.

The Milk-in-Schools Scheme originally applied to the following types of schools:- Public Elementary Schools, other Elementary Schools recognized by the Instruction Centres, Residential Poor Law Schools, Elementary Schools under the War Office, as well as to pupils under eighteen at other Grant-aided full time schools, centres or courses, and to pupils under sixteen at occupation centres for mentally defective children. On August 1st, 1942, the Scheme was extended to pupils under eighteen in full time attendance at all non-grant-aided schools. Pupils under eight attending school in the morning only also qualify for milk under the Scheme.

The number of children in England and Wales taking milk under the Milk-in-Schools Scheme is above 3,800,000, of which about 309,000 are necessitous children who receive free milk. The number taking milk under the Scheme in Scotland is 502,000.

By taking over the whole cost to Local Education Authorities of the Milk-in-Schools Scheme, and in other ways, the Board of Education and the Scottish Education Department have done everything possible to ensure that the maximum number of children take milk at school. The main burden of work has fallen on the teachers, without whose voluntary help the scheme could not continue. In Elementary Schools approximately 80 percent, and in Secondary Schools approximately 60 percent, of the pupils have school milk, about 30 percent of them having it twice a day.

In Canada, which in normal times is a land "flowing with milk", and in which milk surpluses are quite common, no child should be without this vital food. The organization of a school milk programme for Canada might even be considered in wartime, but certainly it should be included in post-war plans both as an aid to milk producers and for the improvement of the diet of school children.

Before a school milk programme could be put into operation in Canada some study should be given to the methods used in operating such a programme in the United States and England to see how the methods used in those countries could be made applicable to Canadian conditions.

Under the United States plan which is outlined above, the Federal Department of Agriculture pays for the milk at the producers' price and the money collected from the children (not more than one cent per half-pint) who can pay for milk is used by the school's sponsor to defray the cost of processing, delivery and serving of the milk to all the children in the school. If such a plan were followed in Canada, a very rough estimate of the annual cost to the Dominion Government for 1,500,000 school children, or two-thirds of all the school children in Canada, would be about $4,000,000.

Canadian Programmes under Department of Agriculture

Should a food stamp plan, if and when such became necessary, and

school lunch and school milk plans be included in the recommendations of the Sub-Committee on Agricultural Policy of the Reconstruction Committee as post-war projects of the Dominion Government, the author believes these programmes for distribution of food should logically be administered by the Dominion Department of Agriculture. The establishment of one or more of these programmes might require certain changes in the pattern of food production in Canada and if such were the case, the Department of Agriculture would be responsible for such adjustments in food production. Moreover, the Department now has a staff of production and marketing specialists, agricultural economists and home economists under whose supervision food distribution programmes could be organized and administered and who could undertake studies which would be necessary before these programmes are started and carry out research and economic analyses which would be required to be done while the programmes are in operation.

Conclusion

As the European nations are liberated from the domination of Germany and Italy food products from Canada must be sent to the hungry and starving people of Europe without cost, on a lend-lease basis or by some other international arrangement. Such products would likely include commodities like wheat and flour, dehydrated eggs, potatoes and milk and also pork if available. Providing food products from Canada, and the assurance that further supplies would continue to be sent, should help to direct the attention of these people toward the restoration of their industrial plants and the rebuilding of their devastated cities rather than towards bending the major part of their efforts to the building up of an agricultural industry for maximum food production which would eventually make it unnecessary to import Canadian agricultural products. Providing European nations with food in their great need should help to make Canadian products known to these people and should assist in establishing a long-time demand for the fruits of our farms. The short- and long-run effects should therefore be definitely advantageous to Canadian farmers. This continued export demand would be more definitely assured if political relationships between nations of the world can be so worked out, following the close of the war, that fear of future wars will be removed; provided, of course, that Canada is prepared to accept the products of nations which have commodities to sell in return for the products we can ship to them.

When hostilities between the United Nations and the Axis Powers finally cease, it would appear to be the responsibility of the Dominion Government to see that men who are demobilized and men now working in war industries who cannot be immediately employed in peacetime occupations or public works projects should have their purchasing power maintained so that they may be able to provide their families with adequate diets until they are again fully employed. This period of transition from a war to peacetime economy should not in the case of most industries require more than six months to a year. A number of new peacetime industries might be started within two years.

The continued demand at home and abroad for food should take up the supply of farm commodities produced in Canada in the early post-war years and if large overseas shipments are required, continued rationing of some food products in Canada might even be necessary for a short time after Europe is liberated. When more normal conditions again return and shortages have been overcome, a nation-wide school lunch and school milk programme would do much to assure a healthy generation of future Canadians, who are now our boys and girls, and would in addition, provide a market for substantial quantities of Canadian foodstuffs.

If the Sub-Committee on Agricultural Policy believes that school lunch and school milk programmes for post-war years are worthy of further consideration, and having in mind the possibility that these programmes might be started when agricultural commodities, including milk, are again available in sufficient

supply to make such programmes possible, which might be seen after hostilities cease, the author of this report is of the opinion that further information should be obtained in the near future. This additional information would indicate what is now being done in primary and secondary schools by way of a school lunch and provision for school milk in all the provinces of Canada, the interest which provincial Departments of Agriculture, Education and Welfare would have in such programmes, how they might be developed as co-operative projects between the Dominion and provincial governments and local authorities, the number of schools in which these programmes would likely be undertaken, the approximate number of children who would have to be supplied with lunches and milk free of charge and the number who would pay for this service, and more definite information on the probable cost of these programmes to the Dominion Government. Gathering of additional information on the operation of school lunch and school milk programmes in the United Kingdom and in other countries might also be desirable.

On the other hand, if the Committee is not convinced that school lunch and school milk programmes can at this stage be recommended and wishes further evidence of their actual need under Canadian conditions, some additional evidence might be obtained by further research on the diets and the incidence of disease in the children in low-income families and by interviews with school authorities and welfare agencies in urban and rural areas of the Dominion. The next step would then be to confine further study in this field to the gathering of additional evidence on the need for the programmes mentioned rather than to undertake a detailed survey of Canadian conditions such as suggested above.

As long as exports are maintained in volume and full-time employment at adequate wage and salary levels continues in Canada it should not be necessary to undertake the distribution of food to Canadian families by means of direct distribution or a food stamp plan. However, if and when exports of agricultural products drop sharply even if employment remains high in Canada, or if the drop in exports be accompanied by large scale unemployment, the establishment of a food stamp plan for the distribution of surplus commodities to Canadian families who would benefit by them would be of material assistance to the farmer as well as provide more adequate diets for those families on the lower income levels.

Should the Committee feel that some plan for the distribution of food, such as the Food Stamp Plan, to needy Canadian families is worthy of consideration as soon as real shortages of food no longer prevail in Canada and without waiting until surpluses of agricultural commodities develop, additional information on the number of families with low incomes which might participate, the co-operation which might be obtained from provincial and local agencies in a Dominion programme, the manner in which low-income families would be certified as eligible to participate in a food distribution programme, the machinery that would be necessary for operating such a plan and other relative data, might be gathered in the near future.

APPENDIX "A"

School Feeding in England, France and Other Countries[1]

Experience in England

The provision of school lunches became a national issue in England soon after the startling statement made in 1902, during the Boer War, by a major-general in the British army that only 2 out of every 5 men who wished to become soldiers were physically fit. In answer to an aroused public, two special committees of technical experts were appointed by Parliament in successive years to study the general social and economic causes for the alleged deterioration of certain classes and to discover means of diminishing it. These committees came to similar conclusions: That there was no hereditary taint causing progressive degeneration but that environmental factors counterbalanced strength at birth; that the most prominent of these destructive environmental factors was malnutrition, especially among school children; and that the most plausible scheme to improve this condition was a programme of school feeding. They recommended that the lunches be supported wherever possible by private funds, with public funds supplied only when the costs could not otherwise be met. However, one minority member of the Interdepartmental Committee maintained: "We have got to the point where we must face the question whether the logical culmination of free education is not free meals in some form or other, it being cruelty to force a child to go and learn what it has not the strength to learn."

Two further commissions were set up to find out what was being done by existing organizations in child feeding, and how adequately they were meeting the need. They found that Victor Hugo started school feeding in England in 1865 by providing warm meals in his home at Guernsey for children attending a nearby school. This stimulated private charitable organizations to feed the children of the poor. By 1905 there were 365 such organizations, 158 in London alone, serving meals to about 100,000 children during the winter; yet the committees estimated that in the larger cities 10 to 15 percent of all school children were undernourished.

All the special commissions were agreed on the desirability of providing school lunches on a national scale, but they did not agree on the question of whether they should be provided by educational or welfare officials. After the report of the second committee, an attempt was made to assist the work of the volunteer charitable associations by a national order that children found underfed at school should, on application of their teachers, be fed free for a month by the existing societies, with the cost charged to the parents as a loan. If the father failed to pay he was prosecuted for vagrancy or cruelth, and if he was unable to pay he was disenfranchised as a pauper.

This plan was a failure. It did not receive the cooperation of either school officials or parents; the parents refused to allow their children to be fed under such terms. It revealed distinctly that the provision of meals was a school problem, and, to be efficient, must be administered by school authorities.

The work of the four committees culminated in the passage by Parliament in 1906 of the Provision of Meals Act. This law transferred school feeding from charities to the local educational authorities by authorizing them to install as part of their regular school equipment restaurants for serving warm meals to children, free to those unable to pay and at cost to others. The object and spirit of the act are summarized in the following quotation:

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(1) From "The School Lunch Program and Agricultural Surplus Disposal" by The Bureau of Agricultural Economics, U.S. Dept. of Agriculture, Mics. Pub.No.467-October /41.

"Its object is to ensure that children attending public elementary schools shall, so far as possible, be no longer prevented by insufficiency of suitable food from profiting by the education offered in our schools, and it aims at securing that for this purpose suitable meals shall be available just as much for those whose parents are in a position to pay as for those to whom food must be given free of cost."

The legislation was not mandatory in nature. The meals were controlled by local committees on which the school board had to be represented. The entire cost of equipment and service was to be borne by the school. The cost of food was to be met, as far as possible, by parents and voluntary contributions, and, if these sources failed, by a local tax. Although the cost of food was charged to parents as a civil debt, non-payment could not be made a cause for disenfranchisement. Teachers were not required to take part in the organization or service of the meals.

The school-lunch programme in England has been broadened and improved by amendatory and additional legislation. In 1907 medical inspection was made compulsory in all schools. In many, the medical officer chooses the children to be fed and approves the composition of the meal. In 1914 schools were authorized to serve meals throughout the vacation periods, after careful studies had shown that benefits of previous school feeding were often lost when the service was discontinued. In 1934, under the National Milk Marketing Scheme, special appropriations were given to the Milk Marketing Board to provide milk to school children free, or at a special price of one-half penny for one-third of a pint. The Unemployment Insurence Act of 1938 conferred on the local authorities for higher education the power to provide meals for youths attending certain vocational classes under the same conditions as for elementary school children,

Practically all the school authorities in England and Wales have provided meals or milk to the children. The most common type of service is the noon meal; in some schools, breakfast and teas are also served. Most of the meals are prepared under the direct supervision of the local committees and are served in canteens near the schools called feeding centres. The average cost of food during the last few years has been between 3 and 4 pence a dinner.

Under the British System most of the meals are served free; about 95 percent of the ordinary meals, 65 percent of the milk meals, and 72 percent of the others. In the 1938-39 school year nearly 700,000 children received free meals. Expressed in terms of the total school enrollment, almost 12 percent of all the children in England and Wales received free milk; about 1 percent, free solid meals; and nearly 3 percent both free meals and milk. In that year 56 percent of all the school children received milk at school either free or at the special half-penny price.

Experience in France

France was one of the early countries to provide for school lunches on a national scale. The movement started in 1849, when a battalion of the National Guard in Paris, finding a surplus in their treasury, donated it to the community as a fund to aid poor children to obtain a schooling. This gift became the nucleus for the "caisses d'ecoles," the funds that support extra-academic activities in schools, including school canteens.

This idea spread to other districts. By 1867 it received the official recognition of the Ministry of Public Education in a school law authorizing the establishment of such funds in all communes. In 1882 the law for compulsory primary education made the provision of the caisses d'ecoles by schools mandatory.

An almost universal function of the funds is the maintenance of the school restaurants known as cantines scholaires. These restaurants are under the independent management of the committee attached to each fund. In larger cities one restaurant usually served two or more schools. The children are served together, those from poorer families receiving their linch without charge. To avoid the possibility of distinction between paying and nonpaying

children all are given the same tickets for admission to the lunch-room at a special box office. Needy children are certified to receive their tickets free only after careful investigation of their home circumstances.

A wholesome meal is served under the supervision of paid teachers in a pleasent atmosphere. The midday meal usually consists of a soup, a vegetable, 40 to 60 grams of meat according to age, bread, and, occasionally a sweet dessert. In some canteens soup is served in the morning and tea in the afternoon. The teachers use this lunch as an opportunity to teach the children clean habits and good manners.

In rural schools where no special canteens are maintained, special arrangements are made between the local people and the teachers. In some instances, the children bring the raw material from home so the teacher can make a communal soup. In others, the teachers or janitors serve warm soup at a nominal cost. In most of the schools the children may heat on the school stove the food they have brought from home.

Although there is no national law making these canteens a compulsory function of the funds, they have become as much a part of the educational work as building schools and hiring teachers. In may communities they are compulsory. By an order in 1882, Paris became the first city in the world to make mandatory the provision of lunches to all its school children. Since 1900, about $200,000 of public funds have been appropriated annually for this purpose. The canteens in most communities are supported by public funds, and, in recent years, there has been a strong movement to have all of them so maintained.

Experience in other European countries

The experience in England and France is typical of the rest of the Continent. Lunch service has been supported by national legislation in Holland,(1) Switzerland,(2) Scotland, Denmark, Italy, Finland, Austria, and Belgium, and has been nation-wide in scope in Russia and Spain.

Although the type and composition of the servingsvary, on the whole they have been comparable to those in England and France. The average cost per meal has been about 3 cents. In all these countries studies have been made of the need for lunches, and of the type that should be served to meet these needs. In all, there has been some co-ordination between the education, health, and medical authorities. In all, special arrangements have been made for feeding indigent children.

In Germany, Norway, and Sweden, the provision of lunches has been carried on through extensive municipal legislation. The first programme on record was started in Germany, at Munich in 1790, by Count Rumford when, as part of his international campaign against vagrancy, he established municipal soup kitchens that accommodated indigent school children as well as the unemployed.

Experience in Latin America

In the survey of the development of school feeding mention should be made of the work being done by our Latin American neighbours. Although school feeding was not undertaken on a national scale in any of the countries until late in the 1920's, scattered projects were started by private societies early in the

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(1) The first country to have national legislation specifically for school feeding, through a law passed in 1900 authorizing municipalities to provide food and clothing for all school children in both public and private schools "who were unable, because of the lack of food and clothes to go regularly to school or to those who probably would not continue to attend school regularly unless food and clothes were provided."

(2) The first country to make national mandatory provision for school meals by a law of 1903 obliging the canteens to supply food and clothing to needy children. In 1906 authority was given for the provision of Federal funds for this purpose.

century. The first project on record was started by a private society in Sentiage, Chile, in 1908. Today free breakfast, lunch, and milk projects, supported either wholly or in part by Federal funds are maintained in Argentine, Uruguay, Chile, Colombia, Brazil, Peru, Venezuela, Ecuador, Paraguay Cuba, Costa Rica, Mexico, and Nicaragua. The rapid development of lunch programmes during the last few years indicated that public authorities have begun to take action on a broad scale to meet the serious problem of child malnutrition in these countries.

School Feeding in the United States

Early developments

The United States was slow in following the lead of European countries in regard to school feeding. Although previously there had been sporadic projects by private societies, public interest was not aroused until after the turn of the century, an awakening that, to a great extent, may be attributed to the publication of two books: "Poverty", by Robert Hunter in 1904, and "Under-fed School Children, the Problem and the Remedy", by John Spargo in 1906. These authors estimated that there were several millions of undernourished children in the United States, pointed out how Europe had attacked the problem of malnutrition by school feeding, and advocated a similar programme for the United States.

Many cities started to operate penny-lunch programmes in elementary schools, often taking over the task formerly carried by voluntary societies. Small portions of food, a bowl of soup, bread and butter, or cocoa, for example, were sold for 1 to 3 cents during the mid-morning or mid-afternoon recess. On the whole, these lunches were self-supporting, served so as to make it possible for children to buy nourishing foods with the money that they were previously spending for trash. The provision of free lunches was considered a matter for welfare, not school, officials -- a problem for local providential societies and welfare boards to meet chiefly through help and educational work with the families at home.

A survey of school feeding in 86 cities of more than 50,000 population, made by the Bureau of Municipal Research in 1918, revealed that although there was some provision of lunches in high schools in 76 percent of the cities, service was maintained in the elementary schools in only 25 percent of them. Lunch service in high schools was imperative because of the shortness of the lunch recess, and the distance of these schools from the children's home. Elementary school children were presumed not to need lunches at school as they could ordinarily go home for the noon meal.

In general, the high-school service was considered a convenient accessory to the school system, not a means of improving nutrition. Of the 72 cities reporting this service, only 5 indicated that the lunch had been established to combat malnutrition.

Concern over the provision of lunches in rural schools followed the city movement. For many years the State and Federal extension workers in home economics have advocated and co-operated in setting up plans for school lunches. A common arrangement is for the children to contribute food for a hot dish prepared by the teacher in place of, or supplementary to, cold lunches brought from home. Ingenuity has been displayed in various localities in obtaining equipment and maintaining lunches, usually under some co-operative arrangement between parents, teachers, and local organizations such as Parent-Teachers Associations, agricultural clubs, and church societies.

Expansion since 1930

The school-lunch movement expanded along these same lines during the decade of the 1920's. It was estimated by the Director of Research of the Nation's Schools that in 1931 there were 64,500 cafeterias in addition to 11,500 schools serving single hot dishes, and that cafeterias were opening at a rate of about 7,500 annually.

But the plight of millions of children during the depression reawakened public concern for child welfare. Many teachers contributed from their own money to feed pupils who came to school hungry. Charitable organizations like the American Red Cross and the American Friends Service Committee took up the feeding of indigent children in scattered localities. But States and local municipalities passed enabling legislation and, in some cases, made appropriations for school feeding. Probably the largest of the earlier appropriations was an authorization by the State of New York in 1934 for the expenditure of $100,000 from relief funds for serving free lunches and milk to poor children.

State Legislation[1]

During the last two decades considerable legislation with regard to school lunches has been enacted by the States. By 1937, 15 States had passed laws specifically authorizing local school boards to operate lunchrooms.[2] Although the laws commenly authorized the serving of meals at cost, usually the cost of the food only, 4 States made special provisions for needy children. In Indiana (for cities of over 300,000 inhabitants - Indianapolis was the only one), and in Vermont the boards were authorized to furnish lunches without cost to poor children, and in Missouri (for cities over 500,000 - St. Louis was the only one), and Wisconsin at less than cost prices.

In other States school lunchrooms have been established by local boards of education under the general authority given them to act in the interest of the school. Such authority has been tested and upheld in the State courts. In Texas, in two cases the board of trustees was upheld in enforcing a rule prohibiting pupils from leaving the school grounds for lunch, in the first instances against a protesting parent, and in the second, against a store that sold food to students. In a number of States the legality of school cafeterias has been recognized inderectly in connection with other legislation. This has been done in Florida, by mention of cafeterias in connection with the school sanitation laws; in Oklahoma, by inclusion of school cafeterias in the list of exemptions from consumers' and users' tax; and in Rhode Island, by exemption of school lunches from the prohibition of sale of articles to pupils on school premises.

An increase in State legislation of a mandatory nature for the provision of lunches to undernourished children has occurred within the last few years. A Washington law of 1935 authorized local school boards to order that half-pints of milk be furnished free to needy children under 14. In its 1940 special session the Louisiana legislature enacted a law that free lunches be furnished to needy children under the supervision of the State board of education, and appropriated a million dollars for the work. The California legislature in 1937 authorized the levying of special district taxes to meet the expenses of providing free lunches and further authorized State and local relief boards to contribute funds to the school districts for school feeding.

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(1) Condensed from an unpublished report, Cafeterias or Lunches for Public School Children (Except the Physically Handicapped and Tuberculous), prepared by Mrs. I.K. Reed of the Children's Bureau, U.S. Dept. of Labour.

(2) California, Colorado, Connecticut, Indiana, Massachusetts, Michigan, Missouri, New York, North Carolina, Ohio, Pennsylvania, Vermont, Washington and Wisconsin,

In addition, Nevada, South Dakota, West Virginia, Mississippi, and certain counties of S. Carolina authorized the serving of meals in high-school dormitories, and Idaho, Maine and Oregon authorized local authorities to furnish board and lodging for pupils when such expense would be less than the cost of transporting the children from their homes by bus.

Federal aid

For many years before 1930, agencies of the Federal Government had been interested in school-lunch work. The Bureau of Home Economics and Extension Service of the Department of Agriculture, along with the State land-grant colleges, worked primarily in rural areas. Specialists in nutrition and home economics helped to develop techniques for providing lunches in rural schools, and State and county field workers carried on educational campaigns for the introduction of hot lunches in the schools in local communities. Health and nutrition specialists attached to State and municipal health departments co-operated similarly with programmes in urban schools. The Division of Home Economics in the United States Office of Education and the home economics supervisors in the various States assisted in co-ordinating school-lunch activities with the work of home-economics departments in the public schools.

During the depression of the 1930's, however, it became evident that the danger of malnutrition among school children was of further national concern. Local funds were inadequate where the need was greatest, and active Federal aid was soon deemed necessary. Such aid has been administered chiefly by three Federal agencies: The Surplus Marketing Administration, the Work Projects Administration, and the National Youth Administration, and their predecessor organizations.

Early Federal assistance was of an emergency nature, a method to enable local authorities to serve needy children a hot dish supplementary to the food brought from home. In 1932 and 1933 the Reconstruction Finance Corporation made loans to several towns in southwestern Missouri for the payment of labour to prepare and serve school lunches. The work was expanded in the winter and spring of 1933 and 1934 under the Civil Works Administration, and in 1934 and 1935 under the Federal Emergency Relief Administration, which operated projects in 39 States.

With the creation of the Works Progress Administration (now the Work Projects Administration) in 1935, school-lunch work was assigned as a permanent part of the duties of the Division of Professional and Service Projects (now the Community Service Division). In the 1940-41 school year, programmes for the service of hot meals were in operation in 47 States, the District of Columbia, and Puerto Rico. In March 1941 about 2 million children were served in the W.P.A. programme.

The National Youth Administration has likewise helped to support school-lunch work. In its earlier years it co-operated with many W.P.A. projects by supplying young assistants to W.P.A. cooks. More recently it has supplied youth labour for non-W.P.A. projects, especially in rural areas where W.P.A. cooks were not available. It has also helped with gardening projects and has manufactured equipment for serving lunches in many schools.

Expansion of the lunch programmes of the W.P.A. and the N.Y.A. has been greatly facilitated since 1935 by the availability of foods supplied by the Surplus Marketing Administration of the Department of Agriculture. All three programmes are administered by distinct Government agencies, but close co-operation among their field workers is welding them into a single, co-ordinated Federal programme. At the same time, the rapid expansion of the school-lunch work of the S.M.A., especially since 1939, has encouraged a large number of schools to undertake projects otherwise supported solely from local resources.

With the passage of the Social Security Act in 1935 additional Federal aid was given to the development of the School Lunch Programme. Under title 5, Federal grants-in-aid were made available to the States, dependent on the fulfillment of certain operational standards, for the maintenance of a nutritional staff under a co-operative arrangement between the State departments of maternal and child health and the Children's Bureau of the Department of Labour. Although the duties of these nutritionists cover the general field of maternal and child welfare, many have given special attention to school-lunch work. The chief nutritionists act as advisers and consultants for the local and State people who are interested in school feeding, and as liaison representatives of the State department of health with the State department of

education and other agencies that are participating in school-lunch work. In May 1941, such nutrition departments were in operation in 28 States, the District of Columbia, Hawaii, and Puerto Rico.

The assistance given by the Government has made possible a rapid expansion of the movement to provide lunches at school for malnourished children in the United States. The movement still falls far short of the need estimated but it has made notable progress and is continuing to expend.

In summary of the development of the school-lunch movement certain generalizations can be made. In the first place, there have been similarities in the rise of school feeding for indigent children in all western countries. In all, it has started as a charitable endeavour carried on by private or semi-official agencies. In the course of time it has become a public concern of municipal, and later of State and National Gevernments.

As school feeding has developed, it has tended to lose the character of relief and charity and become part of the school system itself. In many countries it is recognized as a corollary of compulsory education. As the role of school lunches has thus broadened, their dietary characteristics have improved, and the work has become better integrated in the whole programme of child welfare and education.

So far as can be discovered, there are no important sases on record in which school feeding has been tried as an experiment and has later been abandoned as impracticable or as a failure. On the contrary, the rapid progress of the school-lunch movement in all countries demonstrates that it has proved its value both to health and educational authorities and to the public.

APPENDIX "B"

HOW SCHOOLS IMPROVE THE NUTRITION OF PUPILS

by Agnes Fay Morgan

It is obvious that the easiest as well as the most efficacious plan for improvement of national nutrition is to better the feeding of children during the school years when food needs are most exacting and when nearly all the children of the community are gathered together five days a week under the observation and control of the schools.

The program for improvement of the nutrition of pupils may be divided into two phases, action and education, both of which may be carried on in any school and in many have long been under way.

The two phases together may be organized for discussion under five headings. The action phase of the program may take place in two areas: (1) in the actual feeding of the children at school and (2) in the clinical examination and subsequent vitamin or other treatment of those in need of such service. The education phase covers the remaining three topics, namely, (3) direct and indirect education of the pupils themselves, (4) education of the parents and teachers, and (5) education of the whole community.

The School Lunch.

The simplest and most direct attack on the problem is through provision of food for the children at school. Such feeding is usually done at noon but may be just as effective if offered as breakfast or as midmorning or midafternoon refreshments.

The traditional school lunch has been demonstrated in may communities and over many years to produce improvement in the growth, health, school attendance, discipline, and learning of many children. Physical examination and measurements of school children followed by feeding of known food supplements to some and re-examination of all after varying periods has become almost standard technique in nutrition circles.

Different Supplements Tried

One of the earliest studies of this sort (1) was done at the University of California on a group of elementary school children, comparing the effect of oranges and milk as supplementary foods. All of the children given either food improved, but the orange-fed group in this case grew better, probably because the home diet of these children was already well supplied with milk.

Later studies in this series (2) were carried on in Oakland and Berkeley schools with improvement in the growth of nearly all the children given any of the small supplementary feedings. An orange, a glass of milk, 2 or 3 crackers, or a few figs were each of some value in supplementing the home diets.

One of the most interesting comparisons (3, 4) was that made in a Berkeley junior high school where 80 underweight children ate their lunches in the school cafeteria, one group eating daily ordinary white rolls and the other, rolls made with wheat germ. No other change in their food was made, but the group fed the wheat germ in every case achieved a much better rate of growth in both weight and height. The effect was probably due to the considerable B-vitamin content of the wheat germ. This study was confirmed in Canada (5) and later still in Germany (6).

The extensive observations made in Great Britain by Mann, Orr and others (7) on the effect of various dietary supplements, especially milk, on the growth of several hundred school children added spectacular evidence to the story.

What Basis for Standards?

Orr raised the semipolitical question as to whether the optimum growth and health standards attained by children of the upper-income group and by those given supplemental foods should not be adopted for all classes. Thus, free access to the proper amounts and kinds of foods would be available to all children, possibly through the schools.

Indeed the whole question of setting standards for the normal daily food needs of growing children has become complicated by the wide differences in growth rate of these two income groups. Which shall be set up as the necessary daily intake of calcium, phosphorus, ot protein--that amount needed by the large, rapidly growing boy in a private school or by the slower growing son of a laborer?

If we agree that one of the objective of a cemocracy should be to wipe out the growth differences attributable to economic and social cases, we must recognize that this can be attained only by equalizing the quality and quantity of the food available to all children. Not only economic but also educational measures are required to bring this about because intelligence in the choice of food is even more important than increased income.

Crackers for Low-Income Group

Though many foods of high nutritive value cost no more than some of limited value, poverty increases the hazards of ignorance. An illustration of this was seen in our supplementary feeding studies previously mentioned. In a school group of poor economic status extra feeding of sugar-crackers, containing little more than increased calories, improved the weights and heights as much as did extra milk and more than did the lower-caloric orange feeding. In a school of good economic status the milk and oranges both proved excellent growth stimulants, and in an institution with carefully planned adequate diet little advantage was seen in the addition of either fruit or milk.

The first limiting factor in the growth of the poorest group, therefore, was the total amount of food and until this lack was met no further improvement could be obtained by use of the protective foods. In the groups of higher economic status the calorie intake was apparently adequate and the rate of gain "normal", but when sufficient growth-stimulating food was added the rate of gain was nearly doubled. Which rate of growth of those children should be accepted as "normal"? When the full advantage of even our present knowledge of nutritive needs and our abundant food production and distribution is made available to every child, new "normals" far above the present will surely be established.

The Oslo Breakfast

Adding even small supplements to the daily diet of school children, then, can measurably improve their nutrition, and provision of well-planned lunches or braekfasts can make an even greater contribution. The "Oslo breakfast" which was provided for a decade before the current war to all school children in Norway, demonstrated its value abundantly in better school attendance, performance, and spirit.

I saw in 1931 the children in a large public school in Oslo march into their classrooms and delightedly eat the food spread out on their desks. It consisted of milk in a 12-ounce bottle, a large chunk of dark whole-grain bread, another chunk of a dark whey cheese and a long, clean, raw carrot. No dishes and no cooking were involved, and only a straw and a paper napkin were used for table accessories. But the appearance of those healthy, lively boys and girls indicated the success of the plan.

The composition of the meal is what affects the nutrition of the child, not the fact that it is hot or cold, cheap or expensive, breakfast or lunch, served in fine or poor surroundings. The Oslo breakfast which I saw served could hardly have been bettered in a nutritional sense no matter how much more it might have cost, and it might easily have been damaged by fancy cooking and serving. Little change in the menu can be recommended from that used in 1931, even though during the interim there have been rapid increases

in our knowledge of nutrition.

Lunches from Surplus Foods

In an effort to save farmers from economic ruin; the federal Surplus Marketing Administration in 1935 adopted a farseeing plan for the provision of lunches for school children from some of the surplus foods. The schools were expected to underwrite any expense involved in cooking and service, but the Work Projects Administration came forward to shoulder most of the burden, even as to supervision.

Nevertheless, in some communities school administrators have demurred against the introduction of the program on the ground that no cooking and serving facilities were available. Perhaps there has been too much talk about the HOT school lunch and too much emphasis on the social aspect of the meal.

According to a report made by the Work Projects Administration in 1942, during the preceding year one million school children in 45 states received an adequate lunch daily served by 36,000 women employed by that organization. At the peak of the service in March 1941 about two million children were served. That the benefits to agriculture as well as to the children are considerable was pointed out in a report on the school lunch program and agricultural surplus disposal prepared by the Bureau of Agricultural Economics in October 1941 (8).

Farmer's Needs vs Child's

A valid criticism of this program for school feeding has been that the surplus foods provided free have not been in all cases those most likely to supplement the inadequacies of the children's home dicts. Relatively large amounts of refined flour, apples, raisins, prunes, and butter have been used and very little milk, meat, and vegetables. Fortunately, oranges and grapefruit have frequently been available.

The needs of agriculture rather than of the children have necessarily governed the amounts and kinds of food dispensed. But certainly this program has marked a gain for the nutrition of needy children and one which should have permanence in our economic life.

Physical Examinations

The second type of direct aid by the schools to the nutrition of pupils is through the school health department. The physical examination of children by physicians and nurses has always included some judgment as to the child's nutritional status.

A large amount of literature has developed around the problems involved in basing such judgments upon objective evidence. Determination of weight and standing height was the first and most obvious device, and so-called "norms" for these measurements for age and sex were set up as a result of observations upon many thousands of public school children. The Baldwin Wood standards are the best example of these. Many difficulties have arisen in the use of these norms chiefly because they allow too little margin for the widely varying builds or racial stocks, for the periodic character of the growth curve, and for the fluctuations in body composition.

Numerous other biometric proposals have been made for better judgment of the nutritional condition of children, including the well-known arm-chest-hip index (9). Vital capacity, grip strength, and endurance tests have also been used with varying degrees of success. More recently a new type of record, the Grid proposed by N.C. Wetzel (10), gives promise of a simplified and rational estimate of the physical progress of children, each examined in the light of his own growth.

New Criteria

In the last three or four years, there has also appeared a new group of criteria for nutritional status, based on specific indices of deficiencies.

These include blood analyses for hemoglobin, ascorbic acid and serum protein, eye examination for signs of riboflavin and vitamin A deficiencies, X-ray tests for bone development.

Systematic use of these and other indices was adopted by the Milbank Memorial Fund study of adolescents in New York (11), by the Pennsylvania State College group (12) in their study of families, by a North Carolina group (13), and at present by those studying the status of workers at the Lockheed airplane factory in southern California.

More detailed information as to the dietary deficiencies of adults and children can be obtained by such means, but at much greater cost than the schools can usually pay. Some of the measurements now being made may prove to be less reliable than others, but many more detailed and long-continued observations are needed before a choice of the most significant and practicable can be established.

Home-vs School-Prepared Lunches

In two South Carolina schools Lease and Moser (14) examined 72 children who received an adequate school lunch and 92 who brought their own lunches and served as controls. The ascorbic acid, carotene, and vitamin A of the blood plasma were used as criteria of nutritional status. The children had nearly similar conditions in the fall, but in the spring the school-lunch-fed children showed definitely superior status. About one-half of the home-prepared-lunch group had definitely low blood values, but only from 21 to 35 per cent of the school-lunch group. Evidently the amount and kind of foods provided in the school-prepared lunch were not adequate fully to protect these children, although they benefited the children noticeably.

Screening out the Needy

In the meantime the school health services must apply physical examination methods so as to screen out the most nutritionally needy children, regardless of the economic level of the homes from which they come. Such children were once lumped together as under-nourished or malnourished, and 30 years ago in the heyday of the child hygiene movement were formed into nutrition classes with or without enrollment of their mothers and were encouraged to put on weight so as to get gold stars pasted on their weight charts.

This method, popularized by Dr. W.R.P. Emerson of Boston (15), made its contribution and evolved into the more systematic modern attention to general improvement in the health as well as to the weight of such children. It is now recognized that some so-called under-weight children may very well be nutritionally sound just as normal or overweight children may be malnourished.

Dental Condition as Criterion?

The often-quoted draft rejection figures, 40 per cent of the average, bring forward the role of bad teeth as an index of physical status. About one-fourth of all rejections are due to dental deficiencies. This would put the military authorities in the position of placing undue emphasis on the bite as an Army procedure if it were not interpreted as an index of general physical fitness. Bad teeth and poor resistance, lack of endurance and toughness may be expected to go together if the dental deficiency results from a general nutritional deficiency. Certainly a child with poor dental development cannot be rated as nutritionally sound even though the specific relation between diet and mouth health has not yet been conclusively demonstrated.

School Clinic Duties

Besides listing children who are under-nourished or malnourished, the school clinic should and sometimes does prescribe for them proper dietary supplements as well as medication to family or public health authorities.

The question of choice of treatment, by food alone or by food and vitamin or other special preparations, for seriously malnourished cases is one which cannot be answered by generalizations. If a child is in an obviously depleted condition it may not be wise to wait for the slow but sure building up

by well-selected foods. Even in these cases provision of such food should never be omitted no matter what else may be done. Prescribing rest periods and adequate sleep, supervising exercise and study as well as dietary concentrates and foods, all find a place in the reclamation of children who have been allowed to burn down their birthright of health.

Educational Measures

The educational phases of the improvement of the nutrition of children is only now beginning to be stressed. As indicated earlier, these must extend to parents and teachers as well as to the children if any permanent good is to be done.

The education of parents is certainly indispensable whether their children happen to be well- or ill-nourished but particularly if the family income is restricted. The expensive and careful building up of children during the school year has been only too often undone during the unsupervised vacation periods. And the help which better meals at home can give the school child can certainly not be overlooked. The important role of nutrition in pregnancy and during infant and preschool years has also been established so firmly now that it would seem superfluous to point out the advantage of nutrition education of mothers.

The means of getting mothers to listen to advice in regard to food choice are varied and none are easy. The PTA meetings offer the easiest avenue but to only a small proportion of famillies. Other well-known devices are home visits by the teacher or the nurse, menus, recipes, and dodgers sent home by the children, evening classes, instructions in connection with voluntary service by mothers in the lunchrooms, talks and demonstrations at all sorts of community meetings.

The need for education of teachers, nurses, and indeed the principals, superintendents, counselors, school board, and school physicians and dentists cannot be ignored. Great strides have been made in the last decade in our scientific knowledge of nutrition and in the practical and technical phases of food production. Bewildering claims are made about these matters so that the most intelligent of the laity may be uncertain as to what can actually be accomplished.

Every school system might well set up a nutrition council to direct both the practical and educational phases of food service and scientific nutrition teaching. Such a council should have administrators, parents, and teachers on its panel--and wherever they are available public health officers and nutritionists.

Such a group might be expected to act as sponsor for the school lunch program, to encourage school nutrition clinics, afternoon and evening classes for parents, the penny milk plan, nutrition study for teachers. The pattern now being developed by state and county nutrition committees to meet war demands, with the help of the federal Office of Defense Health and Welfare Services as well as of the local councils of defence, may point the way for the school nutrition organizations.

The school systems of many large cities now regularly employ one or more nutritionists to implement this program: help install the school lunch service, weight and measure children, organize parent and teacher course in nutrition, and teach the subject to the pupils. The supply of these valuable workers is increasing but is not yet equal to the demand.

Summary

Schools then may aid the nutrition of pupils:

1. By feeding the children at school either through serving all children, especially the needy and undernourished, part or all of a meal at noon, utilizing if possible the federal service which have been developed for this purpose.

2. By frequent and accurate physical examination of the children and subsequent recommendation for treatment of those who are clearly undernourished or malnourished. School clinics, including dental clinics, under public health auspices are the outgrowth of such work.

3. By instructing all children, beginning in the elementary schools in the science of nutrition. Such instruction should follow the scientific method and employ laboratory facilities and should not consist of didactic so-called practical applications. Boys as well as girls need this instruction.

4. By instructing parents in the elements of nutrition through class programs at association meetings, home visits, and other means.

5. By instructing the school staff and its supporting community in the importance of nutrition by every means available and specifically through the functioning of a school nutrition committee.

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